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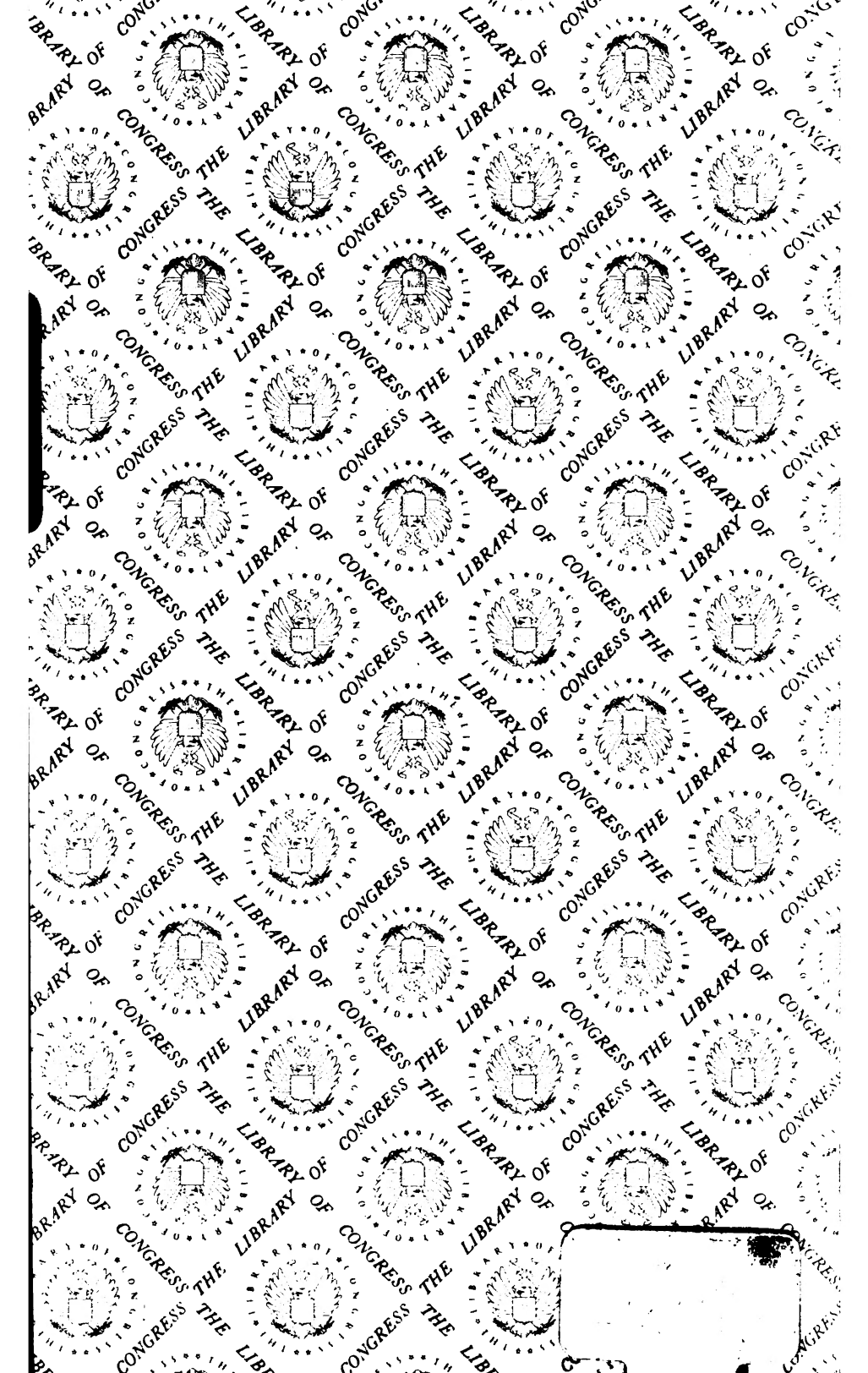
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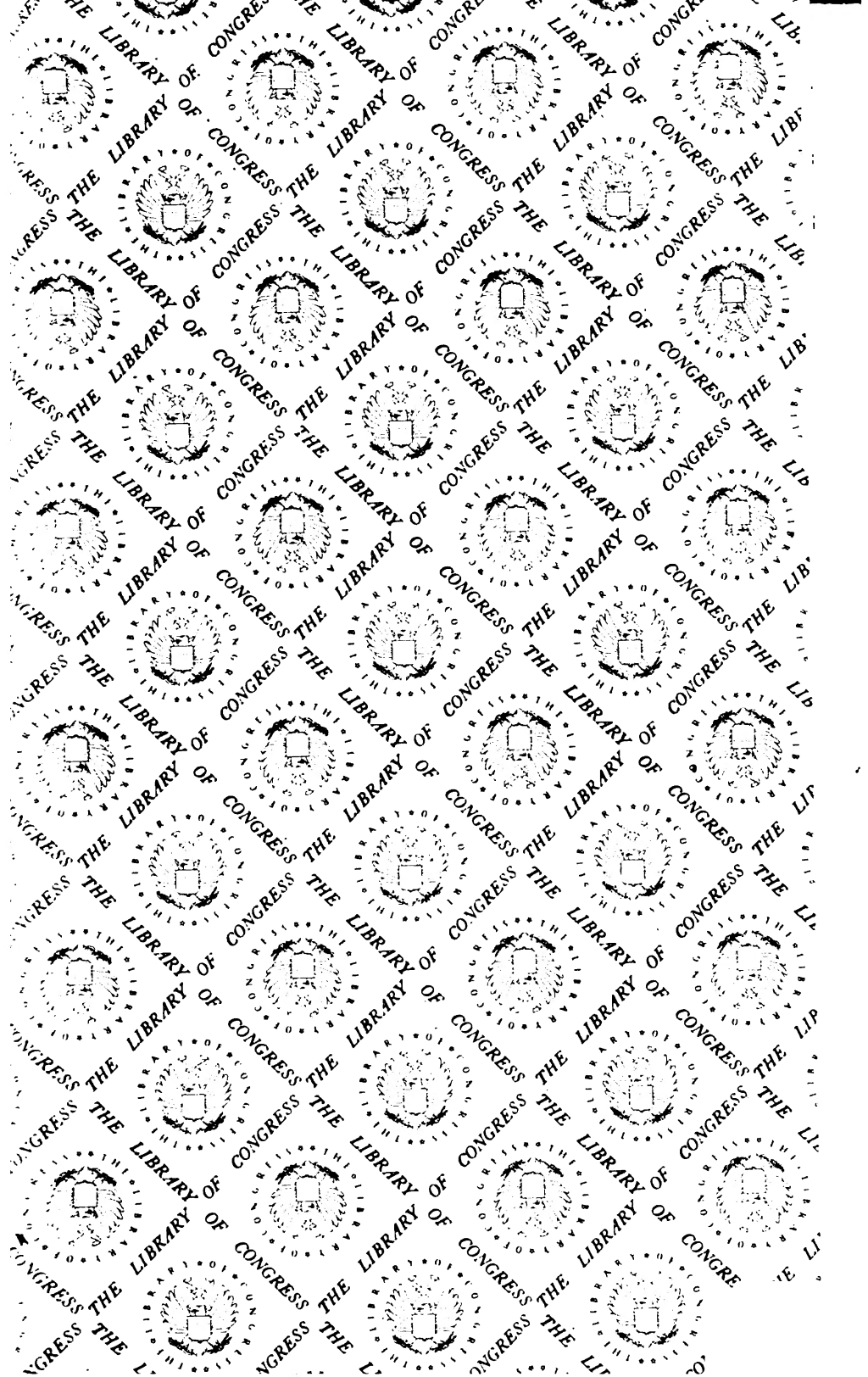
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HOUSE OF REPRESENTATIVES, UNITED STATES.

HEARINGS

BEFORE THE

COMMITTEE ON AGRICULTURE

OF

CHIEFS OF BUREAUS AND DIVISIONS,
AND OTHER OFFICERS OF THE DEPARTMENT
OF AGRICULTURE

ON THE

ESTIMATES OF APPROPRIATIONS FOR THE DEPARTMENT
OF AGRICULTURE FOR THE FISCAL YEAR
ENDING JUNE 30, 1908,

ALSO OF

SEEDSMEN AND OTHER PERSONS ON
FREE SEED DISTRIBUTION
AND OTHER MATTERS RELATING TO THE DEPARTMENT
OF AGRICULTURE.

Fifty-ninth Congress,
Second Session.

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DISTRIBUTION OF SEEDS. /

COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES,
Washington, D. C., December 12, 1906.

The committee met at 10.30 o'clock a. m., Hon. J. W. Wadsworth in the chair.

The CHAIRMAN. There are some gentlemen here who want to be heard on this question of Government free-seed distribution, and I call the committee together to get this question out of the way before the holidays, so that after the holidays we can go on with the appropriation bill. Now, Mr. Smith, please state who are here.

STATEMENT OF WILLIAM WOLFF SMITH.

Mr. SMITH. There are ten or twelve gentlemen here, if you will hear them. Mr. Burpee, of Philadelphia, was selected to open, and he has to leave at 12.30; but he is not here yet.

The CHAIRMAN. We can give you about an hour and a half. You can use the time just as you please, and arrange it among yourselves.

Mr. SMITH. In that case, I suggest that you hear Mr. C. F. Wood, of Louisville, Ky.

The CHAIRMAN. How many people do you want us to hear?

Mr. SMITH. We would like you to hear at least eight, I should say, and possibly ten.

The CHAIRMAN. How much time will each one want?

Mr. SMITH. That is entirely in your hands. It is our understanding, Mr. Chairman, that, if agreeable, we should have some time this afternoon or to-morrow morning. Professor Massie, of Philadelphia, who was to speak for the agricultural press, can not possibly get here until to-morrow morning, and I believe Professor Jackson, of Richmond, will be here this evening; but these gentlemen had engagements and they could not break them in time to get here to-day.

The CHAIRMAN. Go on until 12 o'clock to-day, and then the committee will take up the matter of a further hearing.

Mr. SMITH. I desire to introduce Mr. Wood.

STATEMENT OF CHARLES FRANCIS WOOD, OF LOUISVILLE, KY.

Mr. Wood. Mr. Chairman and gentlemen, my name is Charles Francis Wood, of Louisville, Ky. I am a member of the firm of Wood, Stubbs & Co., and am engaged in the seed business.

This question of an appropriation for the dissemination of seeds in various ways has been a question that has come up before your body and before the House and the Senate for many years. It is only in

the last few years that the question of the appropriation has been discussed as to its value, etc.

The original appropriation (while it was confined strictly within the limits of the law) was never objected to by the seedsmen, and I may say that the question of the appropriation was not taken up by the seedsmen at first at all, but was taken up by the National Grange, an association of farmers of the United States. They agitated the question of this Congressional free distribution of seeds themselves, realizing that many parts of it, as it was carried out, were not doing the country any good. They recognize that it was a misuse of public funds, that it was doing the country no good, and that it was injuring a legitimate private business.

The question, as I understand this matter, is whether this appropriation shall be made, or if it is made, shall it be confined to the strict limits of the law. The law says this act was for the dissemination of new and improved varieties of seeds; and we, as seedsmen, and the country at large, the farmers, do not question this enactment or the wisdom of it. We say, however, gentlemen, that as the law has been construed in the last eight or ten years, and as a portion of it is devoted to injuring a legitimate business, that portion of it should be carefully considered by Congress, and stricken out of the appropriation.

This appropriation is divided up into three classes: First, the Congressional free distribution of seeds; second, the dissemination of new and improved varieties of seeds, and, third, the exportation of foreign countries with a view of finding new seeds for introduction to our citizens. These last two classes we, as seedsmen, and the country at large, do not object to; but we do say that the first clause of this appropriation is a serious menace and injury to our business, and that it does the country at large no good.

Now, look at the Congressional free distribution of seeds. What does it amount to? It is an appropriation of \$132,000 to be spent in common garden seeds, which are put in small packages and sent indiscriminately throughout the country to a list of constituents, and at the request of comparatively few men. I venture to say that the average Congressman, out of his total number of constituents, does not get 2 per cent of those people who write him for seeds. The balance of them are sent as a small gift to a list of names which may be sent him from voting lists, etc. We do not question that point at all. We know that the Congressman has a right to send anything that is given him free; but the question is whether that appropriation is going to do any good, or whether it is doing the country any good, and whether it is not doing the seed business an immense injury.

We have evidence here, which will be laid before you when the time comes, to prove that the combined agricultural press is solidly opposed to this free distribution. We have evidence to prove that every grange, every horticultural society, every board of trade, every interest pertaining to the farmer, has passed resolutions condemning it; and I will show you that a large majority of these things have been done entirely voluntarily on their part. We have no printed petitions, no set forms, to present to you. We can show you the crabbed handwriting of the old farmer, who can hardly write, who has gone to the trouble of writing out a set of resolutions to present to his little meeting, asking that this Congressional free distribution

of seeds be stopped. We will show you editorials taken from the best and most influential of all the press of this country condemning this appropriation and showing up the folly of it.

Mr. SCOTT. Will you permit me to ask you a question or two, if it will not interrupt you?

Mr. WOOD. Yes, sir.

Mr. SCOTT. Have the seed men a national organization?

Mr. WOOD. They have a national organization in this: They have a meeting once a year for the good of the order.

Mr. SCOTT. Has that association, if it could be so called, or the seed men, through smaller organizations, or individually, to your knowledge, brought pressure to bear on the agricultural press to influence their position on this question?

Mr. WOOD. No pressure has been brought to bear. If I understand your question, you mean have they used certain threats, as it were, or pressure in that way.

Mr. HASKINS. No; not threats, but inducements.

Mr. WOOD. No.

Mr. SCOTT. The statement has been made in the debates on this question that the editorial position of the agricultural press could not be taken as significant of the real sentiment of the farmers because it reflected the business office of the press; that the advertisers—the seed men who advertised in the agricultural press—had more influence in the editorial utterances of the paper than the farmers who were the subscribers to the paper, and it is for the purpose of drawing that out that I asked the question.

Mr. WOOD. I think I can answer that for you. In the United States there are about 14,000 of what might be termed county papers. By a county paper, I mean a paper that has a circulation right in its own little county. There are possibly 475 to 500 farm journals, or journals which have a general circulation among the agricultural part of the country at large. The amount of advertising in the United States in a year I could not tell you. It is simply enormous. There are, I suppose, about 10,000 advertisers in the city of New York alone who advertise generally throughout the country. The seed-trade advertising, as far as it is compared with the volume of advertising done in the United States, does not amount to 1 per cent of the total advertising done.

The question, as you no doubt know, has been raised in regard to the patent-medicine advertising. You have been shown in *Colliers' Weekly* and many other publications an ironclad contract to the effect that the minute you publish anything derogatory to the patent-medicine industry the advertising ceases. That I would take as kind of controlling the press.

I will say to you that the seedsmen of the United States do not take advertisements in one-third of the agricultural press. I mean, taking the county papers, and all that, I venture to say that there is hardly more than one-third of those papers that contain seed advertising. You take the daily press, the influential dailies, and everybody who is a practical advertiser knows that it does not pay to advertise in daily newspapers in the seed business.

In the first place, the profits will not justify it, because the daily newspaper goes largely to people in the city, and what the seedsmen

want is country circulation. You take the best of the daily newspapers, and they have voluntarily written editorials and published them in their dailies condemning this free-seed distribution.

Take the boards of trade. Take the New York Chamber of Commerce. Everybody knows there are no farmers in that. The board of directors of the New York Chamber of Commerce passed strong resolutions condemning the distribution of free seeds. Take the boards of trade in other places. They have passed similar resolutions; and I tell you that a great many of these resolutions that have been passed by horticultural bodies and by farmers' associations have been voluntary. They may have seen the suggestion in some paper. They realize that as it is at present carried out it is not doing the country any good.

Mr. LEVER. Just one minute. Will you argue that point? Why is it not doing the country good?

Mr. WOOD. I am going to explain that to you right now.

Mr. DAVIS. Before you go on let me ask you this question: Is it not a fact that all or nearly all of the seedsmen do more or less advertising in nearly all of the strictly agricultural journals through the country—I mean the agricultural journals as such?

Mr. WOOD. I would say there are 1,000 seedsmen in the United States, strictly speaking, as such. Out of that 1,000 seedsmen—those men I mean who are strictly and legitimately in the seeds business and depend on the seeds for their living—I do not believe there are more than 100 to 125 men who advertise in the press in that way.

Mr. DAVIS. Take the two leading agricultural journals of Minnesota, the Northwestern Agriculturist and the Farm, Stock, and Home, two large journals. Do they not advertise in those papers?

Mr. WOOD. Yes, sir. If you will look at those two publications you will probably find in the months of January, February, March, and April—I do not know which of the months are the best to advertise in that journal—as much, we will say, as three-quarters of a page, at the most of seed advertising. After that time they are done. Now, if that publication had to depend on this little seed advertising it would soon have to close up its doors.

Mr. DAVIS. Just another question. Were you ever in Congress?

Mr. WOOD. No, sir.

Mr. DAVIS. How do you arrive at the fact then that you do not believe the constituency of any Congressman does not send in 2 per cent of the requests for seeds?

Mr. WOOD. I did not make that statement definitely. I made it as a supposition. I made it on the basis of what I know is what might be termed a general average. We have, for instance, in the State of Kentucky, a law which requires all fertilizer people to register their brands of fertilizer, and every farmer in that State who buys a ton of fertilizer is requested to send a sample of that fertilizer to the experiment station for analysis.

There are possibly 30,000 tons of fertilizer sold in the State of Kentucky. That 30,000 tons of fertilizer is possibly sold to 30,000 people. Out of that 30,000 people who buy fertilizer in the State of Kentucky, with that direct request, which is for the purpose of protecting the farmer himself, to send his sample to the experiment station, 147 people sent samples.

Mr. DAVIS. For your edification I will say this. I have a constituency of about 40,000 voters, and I distribute annually from 25,000 to

30,000 or 35,000 seed. There is not 1 per cent of that distribution that goes to a man who does not request it. I do not mean a request by letter, but a personal request upon the man who has the distribution of them in various portions of my district.

The CHAIRMAN. How many applications do you find you get?

Mr. DAVIS. Written letters?

The CHAIRMAN. Yes.

Mr. DAVIS. I suppose 500. As I stated, there is not a man gets a package of seeds who does not come and personally make his request of either the post-office or the man in the voting precinct who has the distribution in charge. Therefore they are not indiscriminately thrown around to the voting population. For instance, I send 100 or 125 packages to a certain place. No man or woman gets a package of seed unless they come there and specially request it, and I distribute from 25,000 to 35,000 each month.

Mr. SCOTT. Do you give notice in that community?

Mr. DAVIS. No, sir; I do not.

Mr. SCOTT. Do you not publish a notice that the seeds have been received?

Mr. DAVIS. I do not.

The CHAIRMAN. You send them to the postmasters?

Mr. DAVIS. Some to postmasters, some to committeemen, and others.

Mr. CROMER. How do they find out who is to distribute your seeds?

Mr. DAVIS. Generally speaking, from the postmasters. John Smith will come and say to the postmaster, "Has our Congressman sent you any seed?" "Yes, sir." "I would like to get some."

The CHAIRMAN. Does the postmaster like to do that?

Mr. DAVIS. I suppose so. He puts them in the boxes anyway. He puts the name on that and disposed of them. I simply state that for the benefit of the committee. I buy 15,000 to 25,000 every year aside from my regular quota. I have to do it in order to comply with the requests.

The CHAIRMAN. Do you buy from members of Congress?

Mr. DAVIS. I buy some from the Department and some from men around the corridors here who claim they have obtained them from the city Congressmen who have no use for them. They sell them to me at reduced figures.

Mr. CROMER. You never buy them from the seed men?

Mr. DAVIS. I buy them for cash as cheaply as I can.

The CHAIRMAN. From fellow members of Congress?

Mr. DAVIS. No; I buy them from agents or from young men around the corridors here who come to me and say, "Will you give me so much a package for 5,000 packages?" I ask them where they get them, and they say they get them from city members who do not need them in their districts and have them for sale.

Mr. WOOD. Mr. Davis will bear out my statement—I do not know where he lives.

Mr. DAVIS. In Minnesota.

Mr. WOOD. You will bear out my statement then that not 2 per cent of the seed which you distribute do you have a direct request for?

Mr. DAVIS. Not a written request.

Mr. WOOD. A direct request?

Mr. DAVIS. I have a direct request through my committeeman or the post-office.

Mr. WOOD. That is the point that I intended to bring out. Of course if you were to go along the street and see oranges piled up in a pile, and there was a sign on them, "Take one," I think pretty nearly everyone who went along the street who wanted to eat an orange would take one.

Mr. DAVIS. That is not analogous to my case; not at all, sir.

Mr. WOOD. That is a question, Mr. Davis, that you will have to decide. What I wanted to bring out especially in regard to this matter is that in theory and in practice the Congressional distribution of seeds is wrong. You will all acknowledge that we, as taxpayers—

Mr. DAVIS. Is that on the theory that anything the farmer gets for nothing is wrong?

Mr. WOOD. No, sir; pardon me. I will show you that as taxpayers of the United States we have to help to support this Government, and I think the seedsmen pay as large a proportion of the tax as anybody else, in proportion to their numbers. We have to get a living out of the business. If, as Mr. Davis says, he can go around here in the corridors and buy up a few seeds and send them to his constituents, we are certainly losing Mr. Davis' business. If he has to have those seeds, we would like to sell them to him. We will sell him good seeds, too.

Now, gentlemen, from my statement here, you will all come to one of two conclusions. If I get up and state to you that these seeds are no good, and are doing the country no good, you will say: "What the dickens are you here for anyhow? What have you got to do with it? You are being done no harm. You acknowledge the seeds are no good. What have you to do with it?" We do not say that to you. We think the Department is doing the best it can. It is buying good seeds.

Mr. LEVER. As to your proposition that the taxpayers have to pay this, have you calculated just how much it costs per capita to send out these seeds?

Mr. WOOD. Pardon me; I did not say the taxpayers pay this. I said we as taxpayers have to bear our proportion of the expense, if it is but one cent. It is the principle of the thing rather than the question about how much money it takes. We as taxpayers have to bear our proportion of that expense. I do not say that amounts to very much as far as I am individually concerned; but as a question of principle it is a question that should be considered. We as seedsmen are being very largely injured because it is a direct giving away by the Government of something that we have for sale.

Mr. LEVER. You know, of course, that the United States Government, through Members of Congress, distributes maps, for instance?

Mr. WOOD. Yes, sir.

Mr. LEVER. And horse books, and books on diseases of cattle?

Mr. WOOD. Yes, sir.

Mr. LEVER. Upon the same principle you would object to that, would you?

Mr. WOOD. No; hardly. That is a matter of education. This is not a matter of education. Of course these arguments have been

presented to you often, but what is the good of my bringing in the question here of why you do not distribute cigars, or boots and shoes, or anything of that kind? I do not put that in as an argument. I say on principle the Government has no right to give away any merchandise that is not educational or that is not doing the country good. If the Government were to go into the manufacture, for instance, of some commodity like pocket knives, or lead pencils, or anything of that kind, and send them out indiscriminately through the country, I think it would do the pocket-knife man and the lead-pencil man an injury. Therefore, as I say, we take the position that it is doing our business harm.

Now, gentlemen, to come back to this question, the Congressional free-seed distribution as provided in the appropriation bill is wrong. The seeds you send out, we will acknowledge, are good seeds; but I say in the way you distribute them a great many of them are not used, from the fact that if I live in a town and my back yard is 30 by 20 feet, what do I want with a package of watermelon seed? What do I want with a package of pumpkin seed?

Mr. LAMB. You do not get them.

Mr. WOOD. Pardon me. I did last year. I got a package containing as follows: One packet of mustard, one packet of watermelon, one packet of radish, one packet of beet, and I got it from the Congressman from our district. Everybody on the street got a package.

Mr. DAVIS. Suppose you had owned a 40 or 80 acre tract of land, and had been engaged in farming; would not those have been valuable to you?

Mr. WOOD. Suppose a market gardener gets that package. He wants 10 pounds of seed, and he buys a package about that big [indicating].

Mr. CANDLER. Suppose they turn out to be a very valuable variety.

Mr. WOOD. That is the point I was going to bring out.

Mr. CANDLER. Then is it not valuable to him?

Mr. WOOD. I took particular pains to look up that very lot of seeds I got. I found four of those varieties had been introduced in the United States over fifteen years and sold at every corner grocery store, and that one variety was introduced five years ago. You could have come down to our store and bought any one of those packages of seeds at 5 cents a package.

Mr. CANDLER. Nobody denies that.

Mr. WOOD. If it was a question of new and rare varieties I would not kick.

Mr. CANDLER. You speak about the injury. The appropriation for Congressional free seed distribution was \$132,754.73.

Mr. WOOD. That is right, sir.

Mr. CANDLER. Is not the injury to your business or anybody's business by that amount of seed throughout the United States of America absolutely infinitesimal, and is it not impossible to arrive at any damage to you or to anybody else?

Mr. WOOD. How many packages is that divided up into?

Mr. CANDLER. There are five small papers in each package.

Mr. WOOD. What is the total number of packets?

Mr. DAVIS. About 40,000,000.

Mr. WOOD. 40,000,000 packets of seed at 5 cents apiece is how much?

Mr. CANDLER. You can calculate it as well as I can.

Mr. WOOD. \$2,000,000, is it not? I want to tell you, gentlemen, that our business is not conducted all the year around. The time for farmers to plant seeds is in the spring, and if we could not make a large proportion of profit from our sales in the spring, how in the world are we going to live in the summer and fall and winter when people are not buying seeds? We are bound to make profits, or we have to get out of it. As Captain Landreth said at the last meeting of the seed association, there are 5,000,000 people in the United States who own one-sixteenth of the entire national wealth of this country. Not one of them is a seedsman. And he further went on to show that not one seedsman had amassed as much as \$1,000,000, and not more than one in this country has amassed over \$500,000 out of his legitimate business.

The firm of D. Landreth & Sons have been in business since 1784, the business being handed down from father to son, and still four years ago they had to go into bankruptcy. There is not the profit in the seed business that you gentlemen think. When you take into consideration the expenses and the great amount of work and the enormous amount of details we have to go into to protect our business and the expert knowledge that is required of us, I want to tell you, gentlemen, it is not the cinch you think it is.

Mr. LAFEAN. You say last year the appropriation was \$132,000?

Mr. WOOD. Yes, sir.

Mr. LAFEAN. You say you could sell those seed for over \$2,000,000. It looks to me as though there was a good deal of profit in that.

Mr. WOOD. Pardon me; I did not say so.

Mr. LAMB. That is what I inferred.

Mr. WOOD. I say that seed was divided up into 40,000,000 packages of seeds. A man who buys a package of tomato seeds buys a package of seeds for 5 cents. He may not want over 15 plants of tomatoes. He may not want over 30 to 50 plants of cabbage. He may get seed enough in that to make him double or three times the quantity of plants he required; but as a matter of business you can not afford to put up a package of seed for a cent. It does not pay. There is no money in it. It is too small, too picayunish a business. Seeds go a long way. If you, for instance, have a small suburban home and you get a package of tomato seed from Congress, that package of tomato seed, while it may not have as much seed in it as my package, will make you your 15 or 20 plants that you need.

Mr. FIELD. Have you considered this possible advantage to the farmer in the distribution of these seeds, many of which are the common variety? It very often happens that a certain variety has not been theretofore planted in that community, and it is discovered it is a very valuable variety. For instance, take the cantaloupe seed that is grown in Colorado, a very fine variety. It has been introduced very largely among the farmers by this free distribution, and perhaps it would not have come to their attention except for that fact.

Mr. WOOD. You mean the Rocky Ford?

Mr. FIELD. The Rocky Ford.

Mr. WOOD. The Rocky Ford is a variety of Netted Gem type that was introduced by Mr. Burpee.

Mr. BURPEE. Twenty-two years ago.

Mr. LAMB. But it increased very slowly among the farmers. They have not appreciated it to its full value.

Mr. WOOD. Allow me to suggest this to you about that Rocky Ford cantaloupe. If any of you do not believe my statement about this you can try it for yourselves. The Rocky Ford cantaloupe is absolutely nothing in the world but the Netted Gem cantaloupe taken to Rocky Ford, Colo., where it was found that certain conditions were present which would produce cantaloupes, and that special variety, to perfection. The Government did not introduce the Rocky Ford cantaloupe. The fame of the Rocky Ford cantaloupe spread all over the country because they were growing them in this particular locality to such perfection, and instead of continuing the old name, Netted Gem, the name "Rocky Ford" got attached to that cantaloupe because they came from Rocky Ford. That is no new variety of seeds.

Mr. FIELD. To show you how new it was down in my section, a man named that particular variety the "Field," after me. It was the first seed of that kind he ever got. He did not know whether it was Rocky Ford or anything else.

Mr. WOOD. I will be very glad to take up this matter later, gentlemen, but Mr. Burpee has to leave on the 12 o'clock train, and if you will pardon me, I will stop and let him speak.

Mr. CANDLER. I want to ask you some questions along the line suggested by Mr. Scott a while ago in regard to the effect given to those editorials in the newspapers. While this matter was pending at the last session, the seedsmen held a meeting in this city, did they not?

Mr. WOOD. Some of them. I was not here. I do not know anything about it.

Mr. CANDLER. The morning paper said they held a meeting and organized in order to make a concerted fight against this appropriation. They held a meeting at the New Willard Hotel and decided that the way in which they would create sentiment was to use the newspapers throughout the United States. Do you know whether a fund was raised for that purpose or not?

Mr. WOOD. No, sir; I do not. If it was raised I would have been likely to hear of it, and I was not called on for any contribution, to my knowledge.

Mr. CANDLER. Is there not a fund set apart by the seedsmen now for this purpose?

Mr. WOOD. For what purpose?

Mr. CANDLER. For the purpose of using it—

Mr. WOOD. With the newspapers?

Mr. CANDLER. I do not know whether through the newspapers or not, but to create sentiment against this appropriation.

Mr. WOOD. I do not know that there is any fund set apart for that purpose. There is a fund set apart to bring this matter forcibly before Congress, so that they can see whether it is doing the country any good and whether we are right in our contention. If I came before you as an individual man and presented my claims to you as a seedsman on this question it would have very little weight with you.

Mr. CANDLER. Was there not a fund of \$3,000 set apart last year for this purpose by the seedsmen?

Mr. WOOD. If there was, I do not know it.

Mr. CANDLER. Is there not a fund of \$10,000 set apart this year for that purpose, or to be used, as you say, to create influence and bring the matter before Congress?

Mr. WOOD. No, sir; absolutely not.

Mr. CANDLER. Any fund?

Mr. WOOD. No, sir; no such amount as that. There is a fund for the purpose of presenting this matter to Congress in the most forcible way, but I will say that not one cent of that money has been used to influence newspapers.

Mr. CANDLER. How is that fund to be used, then?

Mr. WOOD. It is to be used by getting up matter and data in regard to this subject, with a view of presenting it to Congress. If all these agricultural papers and all these associations passed resolutions in regard to it, how will you know anything about them unless we collect them and present them to you in a form which you may not see yourself?

Mr. CANDLER. Did not the seedsmen maintain last year, and are they not now maintaining, an office here in the city of Washington?

Mr. WOOD. They are not maintaining an office; no, sir. They have a representative here. Mr. William Wolff Smith is their representative here.

Mr. CANDLER. He is in charge of it and he has been sending out literature and writing letters and things of that kind during a year and a half?

Mr. WOOD. Yes, sir.

Mr. CANDLER. Is the expense of the propaganda that is being carried on paid out of this fund?

Mr. WOOD. Yes, sir. Mr. Smith will answer these questions.

Mr. DAVIS. I would like to ask one question. Do not the agricultural papers in each State, as part of their duties or obligations to seedsmen, make it a point to send a concise statement of objections against the distribution of seeds to each Congressman in their State?

Mr. WOOD. I do not know whether they make it a point to do it or not.

Mr. DAVIS. Do you not know they do it?

Mr. WOOD. I do not know whether all of them do it or not.

Mr. DAVIS. Do you not know that the Northwestern Agriculturalist, of Minneapolis, and the Farm, Stock, and Home, of Minneapolis, which are about as large papers as there are in the Northwest, do that in their State?

Mr. WOOD. I did not know they published resolutions against it.

Mr. DAVIS. They are not resolutions, but editorials and personal letters to Congressmen.

Mr. WOOD. I did not know they had published any editorials against it at all.

STATEMENT OF W. ATLEE BURPEE, OF PHILADELPHIA.

Mr. BURPEE. If anyone, Mr. Davis, is to blame for raising money for what we all maintain is a legitimate purpose I am the man.

Mr. DAVIS. I am not objecting to your raising money for any purpose.

Mr. BURPEE. It was Mr. Wadsworth's committee, gentlemen, that brought new hope to us years after we had given up the fight, when

your committee a year ago, I believe it was, in the beginning of March recommended the agricultural bill with the appropriation for the continued Congressional seed distribution omitted. It was then I called up my friends from Philadelphia. I called up on the long distance telephone Peter Henderson & Company, David Landreth & Sons, at Bristol, and several of the Philadelphia houses, William H. Maule, Henry A. Greer, Johnson & Stokes, and others. I said:

Gentlemen, after all the years we have tried, in a desultory manner, to have this discontinued, here we at last find friends in the Committee on Agriculture of the House. They recognize that the Congressional free-seed distribution as now conducted is not the benefit which so many believe it to be.

Our firm's last fight was in the last term of the Hon. J. Sterling Morton as Secretary of Agriculture. Then the Congressional seed distribution was divided into different sections and let out to the lowest bidder. Our firm obtained, for a sum in the neighborhood of \$50,000—I forget the figures now—the contract for the Atlantic and Middle States, but not the South. Later we received also the contract for the Pacific coast at about \$7,000 or \$8,000 more. It approximated \$60,000 altogether. The year previous David Landreth & Sons had had the contract for the entire United States for vegetable seeds, and another firm in St. Paul, Minn., had the contract for flower seeds.

As those of us who were in Congress at that time will remember, the Hon. J. Sterling Morton was continuously and consistently opposed to this free distribution of ordinary common varieties of seeds that were to be bought at any village store or in any seed shop. After our firm obtained the contract, I forget just what brought it up, but anyway I knew Mr. Morton personally, and a letter that he wrote me about the distribution of seeds, in his vigorous manner, appealed to me as so strong that I sent it to Clark Davis, editor of the Philadelphia Ledger, and told him that as he had frequently had editorials against the distribution of seeds, I thought he would enjoy using this letter of Mr. Morton. He did so, and that started a discussion which individually, with Mr. Morton, our firm carried on almost without asking for help from other houses in the trade.

Some of you remember that Mr. Smith, of the Botanical Gardens, a personal friend of mine and a fine old Scotch gentleman, was so incensed at these articles in the Philadelphia paper, as I mailed him some copies, in criticising the congressional seed distribution, that he wrote me a very strong letter beginning something like this:

My DEAR BURPEE: I can not understand how you and the Hon. J. Sterling Morton will accept money for doing what you do not approve of.

Then he went on and gave his reasons, stating that many backwoods countrymen, particularly in the South and the Far West, never came in touch with this great Government except through the five packages of seeds that they received annually from their Congressmen. He closed his letter by saying: "I am mailing a copy of this letter to every Senator and to every Member of Congress."

In my reply to Mr. Smith I said:

Surely J. Sterling Morton needs no defense at my hands. As for your criticism of my actions, permit me to say that the Government contract calls for seeds and for seeds only, and we are faithfully executing the contract, but our opinion is not purchasable. I am of the same opinion to-day as I was last year, but it would have been very bad taste for us to have criticised this distribution

when David Landreth & Sons, our friends, were conducting it, as it might have reflected on them; but now, when we have the bulk of the order, I think it is perfectly right we should give our opinion.

Gentlemen, the point has been brought out here in regard to the Rocky Ford melon. I said, in answer to that question, that I introduced that twenty-two years ago. The exact date was twenty-three years ago. I introduced it as Burpee's Netted Gem. It has been grown all those years very largely in New Jersey and along the Atlantic coast, in Georgia and so on. Perhaps eight or ten years ago we sent the first seed from Philadelphia out to Rocky Ford, Colo. They have land there that they thought would grow good melons, as it could be irrigated. I think they experimented with different varieties until they settled down on this Burpee's Netted Gem.

Then in labeling it and sending it to market, in New York, Chicago, and different cities, they gave it the commercial name "Rocky Ford," not as a seed variety, but as the product of Rocky Ford. The name Rocky Ford naturally became attached to it, and the melons are called Rocky Fords, even if sold in Georgia. We have sold as high as 1,000 pounds of seed to one grower in Georgia.

Mr. LAMB. Was not that seed very much improved by its cultivation in Rocky Ford?

Mr. BURPEE. Not at all. You can grow finer melons there in Rocky Ford. That is all.

Mr. LAMB. Did it not give reputation to your original seed?

Mr. BURPEE. The Rocky Ford people have ideal conditions, and the melons come in late. They have a long season, and they are very careful in growing them, in selecting them, and in crating them nicely; and the variety, as you say, is known all over the world as Rocky Ford much more than it ever was as Netted Gem.

Mr. LAMB. That was due largely to a happy introduction in that particular place of your original seeds, was it not?

Mr. BURPEE. The result would have been the same with whatever melon they may have taken, when they could grow them under such ideal conditions and ship them with such intelligence, crating them properly. If they had taken Emerald Gem or Hackensack Martin, or any other variety, and grown them under the same conditions and crated them in the same way, whatever melon it was, would have become popular as Rocky Ford, because they got them in the market at a time when other melons were out of the market, at a season of the year when it was at its very best.

Mr. WOOD. I will state that an association of Florida growers last year came to the conclusion, which was published in some of the journals, that seeds from Rocky Ford did not suit their climate as well as seeds grown in New Jersey or somewhere else. Hence the production of melons there does not necessarily mean that the seed is going to be improved.

Mr. BURPEE. That is a very broad question to go into. For instance, take the cauliflower. They grow around the eastern end of Long Island more cauliflower than in any other section of this country, and yet they would not plant seed raised on Long Island or even seed raised on Puget Sound, or California. They want seed grown either in one little section of Germany or, as that produces so little, in Denmark. Practically all the cauliflower seed used on Long Island is produced in Denmark.

Mr. SCOTT. Is it not true that the seed from a Rocky Ford melon grown at Rocky Ford, Colo., if planted in the heavy soil of Illinois, Missouri, or Kansas, would produce a melon much inferior in flavor to the Rocky Ford product?

Mr. BURPEE. If the conditions were not as good, certainly; although, permit me to say, the Netted Gem, or Rocky Ford, as they call it, grown in southern New Jersey, where they have light sandy soil, is of just as good a flavor as if grown in Colorado. There is an old saying about melons that you can not grow a fine flavored melon when you have to sleep under blankets. They want the nights rather warm as well as the days, and you have often noticed that in certain seasons it is impossible to get a good melon, while in other seasons the conditions are suitable and you get good ones.

In reference to the point Mr. Davis asked about—the Congressional distribution, giving away approximately five packages of seed where the Members of Congress have absolutely no choice as to what are the contents of those packages—instead of promoting agriculture I should say, individually, is a detriment, because the man who gets them is waiting for this package and does not know what he is going to get. When they do eventually come they may be pumpkins or turnips, or something for which he has no use, and instead of studying the seed catalogue we send out, and getting the varieties he wants to grow, he finds he has something else.

Mr. CANDLER. The law requires the Department of Agriculture to distribute in each section of the country that character of seed which is especially suitable for the soil.

Mr. BURPEE. Pardon me, sir. Will you allow me to answer that? Doctor Galloway can tell more about that than I can, but being in the business I know something about the purchase of stocks. Am I not right, Doctor Galloway, in saying that last year the Department purchased and distributed many thousands of pounds of onion seed?

Mr. GALLOWAY. Yes.

Mr. BURPEE. This year you do not purchase or distribute a single pound of onion seed?

Mr. GALLOWAY. I am not able to answer that question definitely.

Mr. BURPEE. I know you do not. I know the sources of supply. Now, what effect does it have to send out thousands of pounds of onion seed one year and the next year no Member of Congress can get any onion seed, no matter what he wants?

Mr. CANDLER. They sent them out last year, and they are expected to keep for the next year.

Mr. BURPEE. Let me say this: In the first place, the Department is very ably managed. The seeds sent out are good and the work is well handled. We in the seed business have to produce for our normal requirements every class. For instance, this year onion seed is very short. We would be very glad if we did not have to supply any onion seed. I have already sent onion seed to Texas at 10 cents less per pound than I would pay for it. That is done for the purpose of holding our old customers. Of course our prices will be higher when our new catalogue comes out. I look up the records and see whether a man has been a market gardener and has been buying year after year. If he is a new customer and sends me \$23.70 for that onion seed, I would write to him we could not supply it.

When I see he has bought 15 or 16 pounds the year before and 10 or 12 pounds the year before that for a series of years, I think it best to send him what he wants and then write him that we can not supply any more at that price, as it is much higher. But why is the Department of Agriculture able to do so much more than we seedsmen can do? Because they do not have to contract and purchase certain specific varieties. Not only do we have to produce onion seed every year but certain specific varieties. If the Department wanted to give out onion seed every year, they would still have an advantage over the seedsmen, because several of those varieties of onion seed are produced in the greatest abundance and are the cheapest.

Mr. FIELD. Is there not a resulting advantage to the seedsmen in this, that the Government distributes its seed throughout the country? Take the onion seed for illustration. It is found to be well adapted to Texas, and has come to be quite an industry. When the Government ceases to send onion seed, to whom do they apply? They apply to the seedsmen to get the seed, do they not?

Mr. BURPEE. Yes.

Mr. FIELD. Does not that result in an advantage to you?

Mr. BURPEE. Undoubtedly, when new varieties are given out.

Mr. FIELD. Are they not able to discriminate between the good and bad varieties, and apply to you for the good varieties afterwards?

Mr. BURPEE. I suppose it would result to some degree in that way. The only point I am making is that the intent was to send out new varieties. I want to make this statement, and I will ask Doctor Galloway to corroborate me. I made two trips to California and I know where the Department obtained that onion seed. The Department of Agriculture obtained that onion seed, gentlemen, for 15 cents a pound last year, because it was in a grower's hands and that grower had to realize on it. Yesterday before leaving Philadelphia I signed a contract with a grower in California for thousands of pounds of onion seed—and his is only one of several growing establishments there—and my contract is two years ahead. The seed will not be delivered until 1908, in the fall. Meanwhile I have to either go myself or send the manager of the trial ground or the manager of my business out to California. We make two trips a year to look over the different crops, one in the fall to see the onion bulbs while they are being assorted.

I think there is one variety, the common flat Danvers, the price of which is as low as 45 cents. From that the price goes up to \$1.25. The average price is about 75 cents a pound. I think from that you can understand that it costs the seedsman, when he has to give certain varieties and produce them, a great deal more; and while \$135.000 seems insignificant, yet when it is divided up into a number of branches, and many people think they are going to get from their Member of Congress, or from the Department, just what they want, and they are not as forehanded as they ought to be in sending in their orders. In that way the indirect injury to the trade is considerable.

I thank you very much, gentlemen.

STATEMENT OF WILLIAM HENRY MAULE, OF PHILADELPHIA.

Mr. MAULE. I had no idea of saying anything on this subject, Mr. Chairman, because I have another one that will only take about five minutes; but to show the unfair competition of the Government I want to emphasize the point brought out by Mr. Burpee. Last year Mr. Burpee and myself received from California 70,000 pounds, at least, of onion seed, which cost us, on a two and three year contract, from 38 cents up to \$1.25 a pound. Onion was a big crop last year. There was a surplusage. The Government bought from a man who had a surplus for 15 cents identically the same seed that cost us, making a three-year contract, three and four times that much. This year the onion crop is a failure, and to help out Messrs. Peter Henderson & Co., one of our largest houses, I shipped them, as a special favor, 500 pounds of a certain variety, at \$2 a pound. There are other varieties that are selling in large quantities at \$3.

Does the Government send out onion seed this year? No, sir; they are looking for seed that they can buy at bargain prices. Consequently the \$132,000 they spent last year represents a first cost to us seedsmen of at least half a million dollars. In addition to that, the postage on that amount of seed costs us almost half a million dollars. Of course it does not cost the Government anything. I had the pleasure of taking a photograph of my package mail one day last March, and I sent it to the President. I made a careful calculation. I had three or four clerks working on it. We discovered that that day's mail was just one three hundred and eighty-third part of the seeds distributed by Congress, and I paid the Philadelphia post-office postage on that amount of seed to the amount of \$296. I think those are the figures. I want to say to you that \$2,000,000 represents the selling value of those goods, but the cost of those same goods to us is very close to \$1,000,000 when we have to pay the postage and expenses, and that does not include the expenses of the business.

I want to say now a few words on a subject of vital importance. I think the Congressional distribution has affected me in my profits for the last four or five years to the extent of \$5,000 to \$10,000 as an individual. I have been in the seed business about thirty years, and run it on rather peculiar lines. I have been running it as what we call a distinctly mail-order business. I do not sell my seeds to dealers, and dealers can not get them. All the business comes directly to me through the mail, and I sell all my products myself directly. If Mr. Burpee or other members of the seed trade want to buy my goods they pay the same as the public would have to pay for them, unless I make a special arrangement personally.

We put our product out in direct orders. They come in \$1, \$2, and \$3 orders, but, on the other hand, for years I have offered \$1,000 in cash prizes for club agents. I started that twenty years ago; \$200 is the highest prize to the man who gets up the biggest club, graduating down to 25 prizes of \$5 each. I have had working for me about 1,100 customers, whose annual order would amount to say \$1.50 or \$2, and about the time they go to send in their order they will hitch up their horse and buggy and go out among their friends and get their neighbors to club with them. Then if a man orders \$10 worth of goods he gets more discount than he would if he ordered \$1 worth.

I think Mr. Davis is responsible for about \$50 loss on my net profit. At least three of my Minnesota customers have written me: "I am sorry my order is not quite as large this year, but I find my Congressman has been around and they have got the Congressional seeds." When I appeared before the Senate committee last year I told this about a man in York County, Pa. I had his letter there dated the day before. He had spent a whole day trying to get orders, and he succeeded in getting orders for about \$1.90 from two other people. Then he hitched up the horse and buggy and came back. He said, "I am very sorry, but I have been out getting a club for you for fifteen years. They never had them before, but somehow this year this country is flooded with Congressional seeds." He said: "I am not going to try any more; I throw up the sponge." That man had sent his order in for a period of ten years from \$22 up to \$36. This year he sent in his own order for \$2, and he got a couple of little orders for \$1.90.

I say right here that this Government free-seed distribution has cost me in the last five years at least \$5,000 as a minimum, and possibly \$10,000, and if there ever was a law acting in restraint of trade I think this comes in under that category, because it is certainly in restraint of trade when you send a man out to get orders and find your customers have got the stuff for nothing. The seeds are good, and it is doing me a personal injury. If they would only give out new seeds, instead of costing me money, it would save me money. I have trial grounds in New Jersey and also in Pennsylvania. Mr. Burpee has followed me. Ever since I got a Jersey trial ground, he had to get one the next year. He has one in Jersey and one in Pennsylvania. We have spent thousands of dollars, and I will take my hat off to him. He spends more money than I do in experimenting. I would not be surprised if there were three or four thousand things tried at Fort Hunt last year, and most of them will never be heard of after this trial.

Mr. DAVIS. Mr. Maule, I will state I do not distribute to my constituents more than one package of seeds.

Mr. MAULE. I am glad to hear that.

Mr. DAVIS. I have constituents who use perhaps \$5 and \$10 worth of seeds, so that if I have injured you so much the customers you have must be very small dealers in seeds, if one package floods your country.

Mr. MAULE. You know that is exceptional, Mr. Davis, for a customer to get one package. They not only get the five, but a good many of them who want them will go out of their way and get five more. It is not a difficult thing to get.

Mr. LAMB. It is impossible to give them five.

Mr. MAULE. Some of them get more than that.

Mr. CANDLER. If we get one around town we are lucky.

Mr. MAULE. As I have said, I have had more correspondence on this subject than any other man in my line of business, on account of distributing these prizes on July 1, and I suppose I am more closely in touch with the business than any other individual man in the seed trade. You can readily see that even with the 40,000,000 the country can not be covered thoroughly, and there are no doubt any number of districts in this country to-day that have never heard of Congressional seeds. Of course when they find out they can get them for nothing

I do not get any orders from them. But we want the Government to distribute new seeds and make experiments. Let them distribute something we do not have in our catalogue.

Mr. CANDLER. Do you not know the Government does make experiments and sends out seeds, and that a considerable portion of the seeds they send out is grown by the Department from selected stock, just as you do?

Mr. MAULE. Yes; but on vegetables to a very limited extent, I suppose, in spending that entire amount of money. They have gotten some very valuable lettuce experiments at the Agricultural grounds now—they have gotten something valuable in cotton, for instance, and this macaroni wheat. We want them to do that same thing in regard to vegetable seed. Suppose I or Peter Henderson or Mr. Burpee should hear of a new variety. It is cheap at \$1,000.

We pay the man who has hybridized it \$1,000. Let the Government go in and pay that \$1,000 and do the experimenting we have to do and send it all over the country. If it is a good thing the people will be crazy after it. They will all want that seed to raise crops from it, and the seed trade will get the benefit of these new varieties. Now, the seed trade is doing it for the Government, and in four or five years, when the thing gets cheap—never when it is dear—they go in and cut the life out of it by giving it away; but it never happens much under five or six years.

Let me illustrate. I have told this before. I introduced an onion called the Prize Taker. I paid \$1,000 for about 20 pounds of that seed in California. I kept it to myself for four or five years and sold it at 25 cents a package, five packages for \$1. Finally the others in the trade got onto it, and about twelve years after I introduced that Prize Taker onion the Department of Agriculture thought they would put it out. They did put it out, and I have a letter on file in my office, written in the fall of the year, saying, "We are very sorry indeed to discover that the onion that we put out as your Prize Taker was the ordinary Danvers." That did incalculable damage. Do you remember that, Doctor Galloway?

Mr. GALLOWAY. I remember something about it. Mr. Pieters told me you were all wrong on it.

Mr. MAULE. We have your letter there. That you got that seed from us, and that that seed was nothing but the ordinary Danvers onion instead of this Prize Taker. I heard from people all around. They got this Danvers seed, and it was labeled Prize Taker. I have a letter from the Department saying they were very sorry indeed. That is all the satisfaction I ever got. It must have cost me thousands of dollars.

Mr. SMITH. Mr. Chairman, I would like to present Mr. Hathaway, of Rochester. Mr. Hathaway is a banker who has unavoidably gone into the seed business.

STATEMENT OF HENRY B. HATHAWAY, OF ROCHESTER, N. Y.

Mr. HATHAWAY. Gentlemen, as stated, I come from Rochester, otherwise frequently called the Flower City, the home of nurserymen and seedmen and florists. The seed business is not my chosen profession although I am in it pretty largely. The profession chose me.

I was president and manager of a national bank for a great many years which had the main deposits of seedsmen and nurserymen in our city. We had notably three seedsmen, old and well known as any in the United States, perhaps. One of them, after forty years of business, and two others, after about sixty years of business, having accumulated modest amounts, having supported hundreds of families, and having brought up their own families in their own business, were forced to fail. They failed on the hands of the bank that I represented and got me into the seed business. They lay that failure mainly to the increased circulation or gift of free seeds, which has grown so widely from its original purpose.

As a boy on a farm some fifty year ago, my father was somewhat prominent as an old-line Whig. His Congressman sent him for several years, in the early stages of seed distribution, two or three packages of seeds, with a long request to state the date of planting, the soil, the general conditions, the care they had, the date of flowering, if they did flower, the date of perfection, and the amount grown from the quantity of seed. The sheets containing these questions were religiously taken care of. They were put under the front page of the family Bible, were kept there until fall, when all the facts were ascertained, written down, signed, and sent back to the Department. Those were new and rare seeds. Many, if not all of them, were seeds that we, as farmers, knew nothing about and had never heard of. They were new varieties. That was a test of that soil, of that climate, and that part of the State.

Now, as you gentlemen know, the seeds are distributed by the 40,000,000 packages, and you also know, probably as well or better than I, how they are shipped, how they are dumped out on tables, and people frequently asked to help themselves, the 40,000,000 being about one-third of the entire number of packages of seeds used in the country. The country merchant or seedsman dare not order, because he does not know how many Congressional seeds will come to that immediate town or whom they will come to, and so in many cases the country merchant waits until so late, and then, perhaps, from a change of Congressman or something of that kind the Congressional distribution is omitted, and so I honestly believe that the Government distribution of seeds decreases rather than increases the number of vegetables grown in the United States.

Mr. Davis has told us about the manner of distribution in his district. One of our Congressmen, a neighbor of your chairman, in order to strengthen his fences, not only distributed his quota of seeds to every name he could get from his poll list, but he bought seeds and exchanged with other Congressmen and distributed those. People in flats, who had no place to plant seeds, unless they planted them as Congressman Roberts said they did in New York, in the bath tub, also received seeds. The seeds that came to Rochester, after being widely distributed and franked, were not used as thoroughly as they could be in that way, but several mail bags full of them were dumped on a long table placed there for that purpose in the business house of this Member of Congress, and people were asked to help themselves.

Those seeds remained there for perhaps a month. People would come in and their attention would be called to them. The porter would point to the table, and they were mostly taken. Perhaps five

or six or eight bushels—quite a lot of them—still lay there, and when the seed season was over they were carried to the basement and used for fuel. That is the history of one distribution of seeds three or four years ago.

Mr. Brooks. Mr. Hathaway, may I ask you a question?

Mr. HATHAWAY. Certainly.

Mr. Brooks. You said a few minutes ago that the Congressional seed distribution bore an average ratio to the seeds grown in this country. Have you any data back of that?

Mr. HATHAWAY. There is data that I have seen that the total number of seed packages amounts to less in a given season than 100,000,000. The Government distributes about 40,000,000, and not, as they did forty or fifty years ago, new seeds to test and ascertain what was suitable for central Michigan and what was good for Illionis, and not with the request of the farmer who got them to become a part of the experimental station business, which then was not known; but in those days, if they did not send in these reports, made out, they did not get a second lot of seeds.

Mr. Brooks. This is purely for information, but if you are comparing just numbers of packages, of course that comparison would be quite inadequate, because the package that the Government sends out is very small as compared with the ordinary packages that I see in the seed stores. So I should question your conclusion a little. I would like some information on it. That is all I want.

Mr. BURPEE. As Mr. Hathaway has told you, he is a banker and not a seedsman. I will explain that. What was meant by Mr. Hathaway saying that 40,000,000 was a very large proportion of the seeds used in this country was in reference to the small, flat packages that retail at 5 cents, or two for 5 cents; but the great bulk of our business is different from that. In my own business we would sell of those flat packages not more than 1,800,000, or 1,500,000 to 2,000,000. That would be all we would sell, and that would be a very small proportion of the total quantity of seeds sold. As Mr. Hathaway said, the market gardener, or even the private gardener, who wants a large garden for a family, has to buy the seeds by the pound, by the pint, or the quart. That answers your question about the larger packages.

Mr. Brooks. The question is this: In your judgment what would you say is the proportion the Government distribution bears to the annual consumption of seeds?

Mr. BURPEE. It is very insignificant. I will illustrate that. Yesterday before I left the office, in looking over some mail that had arrived, I found one order from Florida for 19½ pounds of tomato seeds, \$6.50. That is a very high price for tomato seeds, but the man wanted a very good variety. That man is not at all affected by the Government distribution. If he gets a package of tomato seed or a package of pumpkin seed, it is not sufficient to produce the quantity he wants.

Mr. Brooks. This does not indicate my position in regard to the matter, which is pretty well known in the committee. The fact is, is it not, that the Government distribution is very small in bulk as compared with the consumption of seeds in the country?

Mr. BURPEE. Very small in bulk; yes, sir, but very large in comparison with the consumption of package seeds.

As Mr. Maule said, in the mail-order trade—and our house is also exclusively a mail-order house—the profitable part of our business is in the multitude of small orders. In February and March our mail runs from 3,000 to 7,000 letters a day, and the average order is in the neighborhood of \$1.50. Last year, as well as I can remember, the average order was \$1.75, which was very good; 25 cents makes a great difference in a day's receipts. Those orders of 50 cents and \$1 and \$1.50 are largely composed of these small packets.

Mr. BROOKS. And they are the ones with whom the Government competes?

Mr. BURPEE. They are the ones with whom the Government competes.

Mr. BROOKS. Getting at it in another way, suppose you eliminate the wholesale consumer, if you will; that is to say, a market gardener on a considerable scale, who buys more than a dollar or two of seeds in a year. What proportion would you say, in your judgment, the Government distribution bears to the remaining seed consumption; that is, the retail seed, the little fellow who buys only a small amount.

Mr. BURPEE. To answer that you would have to take into consideration not merely the small packets—but what you want is a private plant—if you had a garden?

Mr. BROOKS. Yes.

Mr. BURPEE. If you had a garden you would send in an order of \$2 or \$3, or if you had a large family, \$5 or \$6; but if you sent in an order for \$2 or \$3, in that packet you would want certain seeds by the ounce, like radish seeds. You would want other seeds, like peas and beans and sweet corn, by the pint or quart. Those would not be flat packages, like the Government distributes. The Government only distributes radish seed put up about four to the ounce, and peas and beans in small packets, so it would be impossible to answer that question any further than Mr. Hathaway has stated, that when the Government distributes 40,000,000 flat packages, probably not many more than that are sold by all the houses in the country.

The CHAIRMAN. What is the market value of the Government seed distribution?

Mr. BURPEE. If the seeds were sold?

The CHAIRMAN. Yes. Put up exactly as they are by the Government and sold by an individual, what is the market value of them?

Mr. BURPEE. The market value of those 40,000,000 packets would be \$800,000.

The CHAIRMAN. What proportion would that bear to the whole seed sales?

Mr. BURPEE. The whole seed sale of the country, of course leaving out grass and clover seed, which is a large volume—

Mr. LAMB. \$10,000,000.

Mr. BURPEE. It is more than \$10,000,000.

Mr. LAMB. \$12,000,000, I think.

Mr. BURPEE. I should think it is more than \$12,000,000. There is one house in Detroit, D. M. Ferry & Co., whose annual turnover in vegetable seed alone would be \$1,000,000, I think, at least. I should think, Mr. Chairman, the garden seed industry of America, the annual turnover, would be \$20,000,000, and probably more.

Mr. MAULE. It is between \$10,000,000 and \$15,000,000.

Mr. LAMB. I have the figures in my office. I think it is about \$12,000,000.

Mr. BROOKS. Then that does become quite serious. That would be about a sixteenth of the whole consumption.

Mr. MAULE. That is the entire turnover, ounces and bushels.

Mr. BURPEE. I should put it a little higher than that.

Mr. CANDLER. You say you think the seed distribution furnished by individuals and sold by individuals would be \$800,000?

Mr. BURPEE. Yes, sir.

Mr. CANDLER. The total amount of seeds the Department bought last year was \$163,273.75.

Mr. BURPEE. But I explained to you a little while ago how they got a good deal more than they got from the seedsmen. The cry from your fellow-members has been for more packets, so that while they buy good seeds, they buy the seeds they can get the cheapest. For instance, last year they bought first-class onion seed at 15 cents a pound, but to-day it would cost them \$1.50 to \$3 a pound—the same seed. The point I make is that the volume of money, \$135,000, buys many more seeds for the Government, when the Government can take any variety, than it would purchase for a seedsman, who must have a complete assortment.

Mr. DAVIS. What would prevent the seedsmen from buying the same stock the Government buys?

Mr. BURPEE. Because onion seed is a biennial, like cabbage, cauliflower, and celery, and the seedsman, to have his stocks true and selected stocks of the same varieties, that will produce identically similar products, must have those crops grown for him. We do a business exclusively by mail. I never go out in the market and buy a pound of seed unless there is a failure of our crops, and to insure against that failure I carry ahead, in an outside warehouse, a year's stock of all my seeds, like cabbages, cauliflower, celery, tomatoes, etc. I have two warehouses in Philadelphia. In order to provide against this failure of crop, and also to insure that the seed is good, a seedsman has to provide ahead and has to make these contracts. The Government in distributing seed gets some of them by contract, but others by circular.

Mr. DAVIS. Then your idea is that the Government only goes into the business when they can buy these bargain sales?

Mr. BURPEE. Oh, no.

Mr. DAVIS. What proportion of the Government distribution is a bargain sale?

Mr. BURPEE. Doctor Galloway could answer that much better than I could. I really do not know that.

Mr. WOOD. I will explain to you. You have heard the surplus spoken of here. You take a man in Michigan growing beans for you. That is his particular crop to grow. You arrange with him to plant enough beans to produce you 500 bushels of Valentine beans for next year's trade. Suppose that man plants that crop, say 1 bushel for 10. He expects to get 10 bushels of the beans from every 1 bushel he plants. If he does not get it, if he only gets 7 bushels from every bushel he plants, the seedsman is short. If he gets 15 bushels from every bushel he plants, the seedsman gets 500 bushels, and the man has 250 bushels to offer to anybody who wants to buy.

He can not get the price he contracted for, because every seedsman has had his stocks. Consequently he has to sell it to the best advantage he can.

He can not carry it over to the next year. That is where the surplus comes in. Mr. Hathaway's business has been affected in this way. He puts out his business in the small country stores. There is a box of seeds, containing 200 or 300 packages to be sold by the little country merchant, for which the merchant realizes probably 40 or 50 per cent on what he sells. If the merchant does not sell that seed because of the fact that the Congressional seed distribution floods that country, then Mr. Hathaway, instead of selling 50 per cent of that box, gets it back with only 25 per cent sold. And he has to throw that stuff away.

Mr. DAVIS. He could resell it to the Government?

Mr. GALLOWAY. No; he could not, either.

Mr. WOOD. Doctor Galloway would not pass it.

Mr. HATHAWAY. One word more upon this subject. The seed houses I had to take—and they were names that are as familiar to many of you as the name of your chairman—while they did a retail business, and a mail-order business to some extent, depended for their main business upon these boxes of commission seed which you find in every drug store and grocery store among your home stores. In the old days we sent out packages of flower seed and vegetable seed on commission, 40,000 or 50,000 of them to different people all throughout the United States. The proprietor of the grocery store or drug store would perhaps sell half the box. He would perhaps get \$10 or \$15 of sales, 40 per cent of which he would retain, and turn over \$6 or \$8 to the seedsman's agent when he went around in the fall to collect up.

Since the Government's free seed distribution has grown to such proportions, particularly since it was doubled two or three years ago, those boxes are sent out with the same care, with quite as large freight charges, and quite as much expense in putting them up, and the druggist will sell perhaps \$4 or \$5 worth out of it, 40 per cent of which he keeps, and turns over perhaps \$2.50 or \$3, or \$4, and occasionally \$5 to the seedsman's agent, and that is all used up in actual work. There is not only not a profit in sending out these commission seeds, but in many cases it will prove to be quite a serious loss, and that is what has made the seedsman go to pieces. The business of firms of forty to sixty years standing are the ones I have become interested in, and it is because of the Government free distribution that many people will not order through our mail orders, because the Government seeds are not all gotten out early. People do not know when they are coming. They hold their orders until it is too late to plant successfully, and they do not buy.

As I said before the Senate committee last spring, I believe the Government seed distribution actually curtails the number of vegetables grown in the United States.

Mr. LAMB. That would be impossible.

Mr. COCKS. Has your trade on Long Island fallen off in the last year?

Mr. HATHAWAY. It has fallen off in Long Island, I think.

Mr. COCKS. You do not know of anything in particular about Long Island business?

Mr. HATHAWAY. No.

Mr. COCKS. I never send over two or three packages and generally only one to any one person. It seems to me it would be impossible to affect the trade. My constituents are largely market gardeners. Of course I do not send to them. They do not care anything about it, but I have sent to small farmers and people living in villages, and I imagine the amount sent to each one could not possibly have affected the business.

Mr. HATHAWAY. The effect is general. In some towns there is a little laxity, or they change Congressmen, and the Congressman does not have quite as full a list. He does not know that the way of distributing is through the post-office, or through his town committeemen. In some cases the sales are better than others, but there is a general falling off. We ship from Texas to the Indian Territory, in almost every village and town, and many crossroads.

Mr. LAMB. Would one package of those seeds plant a garden as large as half of this room?

Mr. HATHAWAY. It would depend on the seeds. In some instances it would plant more and in other cases very much less.

Mr. LEVER. Your whole contention is that this Congressional seed distribution injures the seedsmen?

Mr. HATHAWAY. That is not my whole contention. I believe it is a contradiction of the terms of the law under which you are working, which provides for the distribution of and experimenting with new seeds and their introduction. That is the way it started. They did not send out pumpkin seeds or squash seeds or any of the old seeds that had been grown pretty near back to Adam's time.

Mr. LEVER. And to continue the distribution under the old law, as you interpret the intention of it, would not hurt the seedsmen, but would rather help him, would it not?

Mr. HATHAWAY. I think every seedsmen would welcome the appropriation being expended in experiments with new and rare seeds, getting them from abroad and distributing them in various parts of the country. We have now what we did not have in those days—experimental stations, which will be of incalculable value. You send the Geneva experimental station half a dozen or a dozen or 50 varieties of these seeds, and the probability is that with careful management and good conditions they will report ten or fifteen of those to be of great value in western New York.

Mr. LEVER. Do you think it is within the province of the Government to even find and introduce new varieties of seed?

Mr. HATHAWAY. That is the wording of the bill, as I remember. It does not contemplate that the Government will go into the seed business and give away seed. It is for the purpose of introducing and experimenting with new seeds which they hope will be of value to the people in some portion of the United States.

Mr. LAMB. Have you read that law carefully?

Mr. HATHAWAY. I have read it a number of times.

Mr. LAMB. I invite your particular attention to it when you get the opportunity.

Mr. FIELD. Has not this industry as a whole, in the last few years, maintained itself very well? Have not the seedsmen maintained their standing and made a reasonable profit on the investment?

Mr. HATHAWAY. I do not think they have. They certainly have not in our part of the country; and we have almost a garden spot there.

Mr. DAVIS. Then, as I understand from the remarks of yourself and the other gentlemen this morning, the opposition to the free distribution of Congressional seed arises in consequence of the damage it does to the seedsmen?

Mr. HATHAWAY. That of course is what affects us.

Mr. LAMB. Does your argument apply likewise to the flower seed? You have not said anything about the flower seed.

Mr. HATHAWAY. The flower seed we do not hear so much of. I think many of the packages do not contain flower seed; do they, Doctor Galloway?

Mr. GALLOWAY. About 10 per cent of the whole is flower seed.

Mr. HATHAWAY. The flower seeds are a little different.

Mr. GALLOWAY. They go mostly to school gardens, however.

Mr. HATHAWAY. Yes, sir; they go in directions where they do not hurt.

Mr. LAMB. They go to every pretty young woman in my district I can get them to.

Mr. HATHAWAY. Last year some of the seedsmen had to chip in and send, upon request, flower seeds to people who had not received them. Thank you, gentlemen, for your attention.

Mr. SMITH. Mr. Chairman, is it your pleasure to continue further?

The CHAIRMAN. It is after 12 o'clock, and the House is in session. Will the committee hear another gentleman now, or would they prefer to go on to-morrow morning?

Mr. SMITH. Could you hear us this afternoon? Some of the gentlemen have come a long distance and want to get away. Mr. Wood, for instance, is here with his wife and several parties, and they are very anxious to continue on their way. He is one of the most important men in the seed trade. He is the president of the American Seed Trade Association.

The CHAIRMAN. How long would Mr. Wood want?

Mr. SMITH. Ten minutes, he says; and I would like to say this: Of course these gentlemen are speaking entirely from the standpoint of the seedsmen whose business is injured, they think, by this distribution. Later on we will try to present arguments from other people who think the distribution is wrong; also some from the farmers.

STATEMENT OF HENRY W. WOOD, OF RICHMOND, VA.

Mr. WOOD. I want to answer one or two questions that have been asked. The gentleman from Long Island spoke about distributing the seeds to village stores and others, and about its not affecting the sale of these package seeds by the stores in the immediate neighborhood.

Mr. COCKS. Oh, no; I said I sent only one package to each individual addressed to him.

Mr. WOOD. But there are five packets in them.

Mr. COCKS. There are five packets in them, but I send no more than that, except in rare cases.

Mr. WOOD. The market gardeners do not buy these packet seeds.

It is the small gardeners around the villages and others who buy the package seeds.

My friend Captain Lamb had an interview in the Richmond Dispatch of December 11, 1906, and there is a matter there which probably opposes the sentiments of some of the other Members. I would like to answer that. This is what the article says:

Captain Lamb, of the Richmond district, said to-day that there will be a series of hearings Wednesday before the House Committee on Agriculture on the question of a distribution of free seeds by the Department of Agriculture and Members of the Senate and House. He said that the hearings would be practically all taken up by seed dealers and those whom they have succeeded in interesting in the matter.

He says that it is more than likely that the committee will repeat its action of last session and vote to strike out the free seeds, but that when the matter comes up on the floor of the House the free seeds will be authorized again by an overwhelming vote. He said that it was his experience that these seeds are demanded by the best class of farmers in his district, and that inasmuch as many of the seeds are such as can not be gotten from seed dealers, they are particularly valuable in that they give the farmers a chance to get the best seeds and to improve the vegetables and flowers of the communities into which the seeds are sent.

Mr. LAMB. And I stand by that right straight along.

Mr. WOOD. Captain, I am with you. We are not opposed to the distribution of new and rare seeds. We are only opposed to the distribution of the common and ordinary seeds. We say the Government is doing good and has been doing good by the distribution of rare and new seeds. The only thing we are opposed to is the distribution of common, ordinary seeds. It looks to me, as a matter of simple justice to the seedsmen, as if the Government of this country should not enter into competition and should not try to throttle and hurt the business. I know it does hurt the seed business by the distribution of these seeds. I will give you some instances.

I had one order from North Carolina. A man made out a list of seeds to the extent of \$6 worth. After he got through he ran his pen through the items and struck out \$2 worth. He said, "I find I have those seeds sent me by my Congressman," and he struck out 33 1/3 per cent. We have letters from merchants all the time where these seeds are distributed. They say, "Our sales are falling off because our Congressman sends seeds into this district." It affects the merchants who handle seeds all through the Congressional districts.

Captain Lamb speaks about the large number of inquiries he has, and where a farmer gets it in one section he lets others know about it, and of course it is only human to want anything that is free. We got out a little celluloid bookmark, a pretty little thing, and we had an inquiry from a little girl in New Orleans.

We mailed it to her, and we had more than 100 postal cards and letters from school girls in New Orleans asking us to send them this celluloid bookmark. Anybody who can get anything free is going to get it, as a matter of course. Gentlemen, it seems to me you ought to look at this thing from a fair and square standpoint. This Government ought to help the business interests of the country, and it ought not to try and do us an injustice and compete with us unjustly. It ought rather to help us. We want to help the Government. We want to help in these matters in any way we can, in regard to rare and new seeds.

Mr. DAVIS. Do you know any greater business in this country than that of the agriculturist?

Mr. WOOD. I do not; and I do not know of any business the United States Government pays more attention to. It devotes millions of dollars toward helping the farmer. Another statement in this same paper says the farmer gets very little from the Government. There is no class of people who get more from the Government than the farmer. We have the Department of Agriculture to look after the interests of the farmer. If a man's cattle have cattle diseases, he can write to the Department and get assistance. If he wants to know what a certain grass is, he can get it from the Department. He can get from the Department books and bulletins on every subject he wants to know about to educate him in his business. There is no other class, no other trade, no other business that begins to get one iota of the assistance that the farmer gets.

Mr. DAVIS. Do you know how much money is spent on the agricultural industry of the United States?

Mr. WOOD. I do not know, but it must be several millions.

Mr. CANDLER. In the last bill it was \$7,000,000.

Mr. WOOD. We have only recently established a Department of Commerce and Labor, and of course that covers vastly larger investments than the agricultural industry.

Mr. LEVER. In this country?

Mr. WOOD. I suppose so.

Mr. LAMB. You are very much mistaken.

Mr. WOOD. Anyway, there certainly is no class and no trade that receives more than the Department of Agriculture. We simply ask you to look at this thing from a fair, square standpoint.

Mr. LAMB. As you have referred to me personally, I wish to say that the exports of this country amount to \$1,500,000,000, and the farmers of the South furnish \$631,000,000 of that amount.

Mr. WOOD. I thank you, gentlemen; I simply wanted to bring out those points.

The committee (at 12.15 o'clock p. m.) adjourned until Thursday, December 13, 1906, at 10.30 o'clock a. m.

THURSDAY, *December 13, 1906.*

The committee met at 10.30 o'clock a. m.; Hon. J. W. Wadsworth in the chair.

The CHAIRMAN. Mr. Smith, you may proceed.

Mr. SMITH. Mr. Alexander Forbes, of Peter Henderson & Co., seedsmen, of New York, will be the first speaker on our side this morning.

**STATEMENT OF MR. ALEXANDER FORBES, VICE-PRESIDENT
PETER HENDERSON & CO., NEW YORK CITY.**

Mr. FORBES. Mr. Chairman and gentlemen, I think it was the Hon. John Wesley Gaines who complained when the seed appropriation bill came up before the House last April that they had never heard from the seedsmen in any shape or form. We thought it was about time that we came forward to have something to say in this

matter; but we also remembered that we were here about six years ago, which was the last time I had the honor of addressing this committee.

At that time we presented ourselves and tried, if possible, to get the committee to take action in the matter, but nothing came of it. In fact, when we got back to the hotel we found that while we had been talking here Senator Tillman had succeeded in getting an extra appropriation of \$100,000 for the Congressional free-seed distribution. We thought that was not very encouraging, and consequently we did not return to the charge; but now that they would like to hear from the seedsmen we thought we would come here and do all we could to lay our views before you.

There will be one or two speakers who will speak for the seedsmen to-day; but there will also be some gentlemen representing the agricultural press who will be able to tell you something from their standpoint. We also hoped to have the master of the National Grange to speak from the farmers' standpoint, but he is unavoidably absent. We have a letter from him stating that he could not come. We will have, however, his letter and some resolutions from the National Grange, from the Farmers' National Congress, and from various State granges throughout the Union, and kindred societies, such as horticultural and agricultural societies, all over the country. We will also have letters from experimental stations, showing that they are very strongly in favor of the abolition of the Congressional free-seed distribution as now conducted. We will also have an exhibit here from Long Island, in the shape of a bundle of seeds that were rescued from a fire. We have a bundle of them and all these will be laid before you to-day.

FREE SEEDS DESTROYED BY FIRE.

This [indicating] is an exhibit of some Congressional free seeds that were found on Long Island, somewhere about Woodside, Long Island, I think, by Mr. Beaulieu. He rescued these. They were being burned in a pile outside of a store.

Mr. CANDLER. Were they put up in this way, in these boxes?

Mr. FORBES. No; they were all in a heap, as I understand it. I did not see the seeds myself.

Mr. CANDLER. They have been put in these boxes in this way by you?

Mr. FORBES. Yes; they were simply in a heap. We put them up in boxes for convenience, to show them by varieties.

Mr. CANDLER. I simply wanted to know. I never had seen them sent out in boxes like these.

Mr. FORBES. They were simply put in a pile, and the seeds themselves are as we found them.

Mr. LAMB. They are your boxes. The Government has nothing to do with the boxes?

Mr. FORBES. No, sir; they were promiscuously mixed up, and they were taken as they were found.

Mr. CANDLER. Whose district were they found in?

Mr. FORBES. I do not know just whose district. It is Woodside, Long Island, where the seeds were burned, and they bore the frank of Charles Towne, I believe. Some of them bore the frank of ex-Representative I. E. Rider, who preceded Mr. Towne. This exhibit,

gentlemen, shows that these seeds get into the hands of a great many people who really do not know what to do with them. They find their way to the post-office. The people are asked to come and help themselves and take them away, and when they do not get distributed, as in this case, they have to be destroyed in some way.

Mr. DAVIS. Does that hurt the seedsmen to have them destroyed?

Mr. FORBES. I do not know that it does.

Mr. LAMB. Suppose they were all destroyed in that way. What would be the result so far as you are concerned? They would not come in competition with you then, would they?

Mr. FORBES. No; not if they were destroyed by fire.

Mr. SCOTT. Where did you say they were found?

Mr. FORBES. Woodside, Long Island.

Mr. SCOTT. Under what circumstances?

Mr. FORBES. They were simply being destroyed, and one of the florists in that neighborhood saw the heap when they actually touched a match to it, and he went and got a bag and helped himself to about a bushel of them.

Mr. SCOTT. They are addressed to a number of different persons, are they?

Mr. FORBES. No; they are not even addressed.

Mr. SCOTT. Were they being destroyed by the postmaster?

Mr. FORBES. No.

Mr. SMITH. In order to save a little time, if I may interrupt Mr. Forbes for a moment, I will say that when I get the opportunity I will present the letter of the gentleman who found these seeds being burned, which will explain all we know about these seeds.

Mr. HASKINS. Were they all franked by Congressman Towne?

Mr. FORBES. Yes; most of them have Congressman Towne's frank, but some bore the frank of Mr. Rider.

Mr. SCOTT. Inasmuch as this matter has come up now, I do not know why it would not be the best way to have the letter appear in the record at this time. It would be a matter of some interest to know how it happened that these seeds did not interest the persons for whom they were intended.

Mr. SMITH. If I may interrupt Mr. Forbes, I would be glad to present it now.

The CHAIRMAN. We will be glad to have you do so.

Mr. SMITH. We heard from Mr. Beaulieu that he had found these seeds. I heard also from Mr. Forbes that these seeds had been brought in to him. I wrote to Mr. Beaulieu and asked him how he came to get these seeds, and he says:

BEAULIEU, SEEDSMAN AND FLORIST,
Woodhaven, N. Y., August 23, 1906.

WILLIAM WOLFF SMITH,
Washington, D. C.

DEAR SIR: I have your favor of yesterday. I am answering the best I can. I saw the seeds burning myself in the morning of August 9. Some who saw them say there was a truck load. I saw the heap—also Mr. Muret, on Thompson avenue—about 25 feet from the curb, 4 feet high and at least 5 feet deep, and lots of seed packets and envelopes scattered all over the garden. It covered 100 feet square, at least, with the name of Charles Towne and I. E. Rider, M. C., on the free Government packages.

Mr. Schmelenksi's men saw it; they are Polish people, and you find out their names. As far as I can learn, they came from an ex-borough president of Queens; all that I am not certain and I can not tell name yet. The fire was

on August 9. Only on the 15th I went to get proof, and I have bought for \$1 half barrel of free seeds from Schmelenksi or the foreman, I couldn't exactly say. Anyhow I had the goods and show the Florists' Exchange's editor, proprietor, etc. Mess. Peter Henderson got the free seeds. Now, I am going to write a letter to Mr. Schmelenksi and ask him where he got the goods. Then I will let you know, if I have an answer. I thank you for your favor. I am going to do all that possibly can to stop the free seeds business.

Yours, respectfully,

BEAULIEU.

The CHAIRMAN. You introduce this as evidence to show that a great proportion of the seeds distributed through Congressmen go amiss and answer no good purpose. That is what you want to show?

Mr. FORBES. Yes.

Mr. SMITH. If I may be permitted to say it, the more seeds that go in this way and the more that are destroyed, as I understand the seed business, the better the seedsmen like it. But we oppose this not only as seedsmen; other people will speak to you. We have letters and resolutions from people all over the country, not seedsmen, but citizens and taxpayers. Where you spend our money for seeds and they are sent to Long Island and burned up you waste our money.

Mr. LAMB. Do you not understand, my friend, that that is the exception to the rule?

Mr. SMITH. Pardon me. I can not say that I do know it.

Mr. LAMB. I can readily see that it is the exception.

Mr. SMITH. I have letters from postmasters and letters from agricultural experiment stations, and they practically all say the same thing, that they do not want any more of these seeds, and many of them tell how the seeds are addressed to dead persons or others who have moved away, and how they are finally destroyed to get rid of them.

Mr. CANDLER. What business is Mr. Beaulieu in?

Mr. SMITH. Fancy seedsman, he calls himself.

Mr. FORBES. Market grower and florist, in a small way, I believe.

Mr. SMITH. I have a number of letters on this subject, showing this is going on throughout the country.

Mr. FORBES. This collection of seeds represents, as I understand it, an average list of varieties, about the run of varieties that the Department is using in the Congressional free-seed distribution.

I have separated them out in sorts and made a list of them here, and without exception they are about what we might call as ordinary a list of varieties as you will find in any and all of the seedsmen's catalogues. There are 114 packages of Hollow Crown parsnips presented in the exhibit, which has been catalogued by the firm I represent since 1879, and, perhaps, before that. There is lettuce—the White Seed Simpson and Black Seed Simpson—also introduced by us as far back as 1876, I believe; and the Purple Top White Globe turnip, of which there are 96 packages here, has also been catalogued all that time. In fact, I think the most recent introduction is perhaps the Livingston "Stone tomato," which was brought out in 1894, and that is twelve years ago. That is about the run of the varieties that the Department sent last year, and has for many years past been sending out.

COMMON VARIETIES DISTRIBUTED.

Here is a table showing the number of packets of Government free seeds rescued from a bonfire on Long Island by Mr. Beaulieu,

showing the number of packets of each variety, the variety, and when such variety was first introduced:

No. of packets.	Varieties.	When introduced.
114	Parsnips, Hollow Crown.....	Catalogued by P. H. & Co., 1879.
	Lettuce:	
3	W. Seeded Simpson.....	Do.
3	B. Seeded Simpson.....	Do.
	Turnip:	
96	Purple Top White Globe.....	Do.
12	Purple Top Strap Leaf.....	Do.
30	Early White Flat Dutch.....	Do.
1	Tomato, Acme.....	Do.
36	Onion, Round Yellow Danvers.....	Do.
	Radish:	
33	French Breakfast.....	Do.
52	Scarlet Turnip, white topped.....	Do.
98	Lettuce, Salamander.....	Catalogued by P. H. & Co., 1884.
176	Tomato, Perfection.....	Do.
38	Muskmelon, Bay View.....	Do.
33	Radish, Wood's Early Frame.....	On the market at least thirty years.
	Lettuce:	
114	Hubbard Market.....	Sent out by Chase Bros. about 1875.
10	Giant White Cos.....	Sent out by W. A. Burpee & Co. about 1882.
5	Hanson.....	Sent out by Dreer about 1875.
1	Crisp as Ice.....	Sent out by Livingston in 1894.
9	Denver Market.....	Sent out by Barteldes in 1890.
1	Tomato, Stone.....	Sent out by Livingston about 1894.
22	Onion, Australian Brown.....	Sent out by W. A. Burpee & Co. about 1899.
	Muskmelon:	
37	Acme of Baltimore.....	Catalogued especially by P. H. & Co., 1886.
76	Rocky Ford Netted Gem.....	Sent out generally in seed trade about 1888.
6	Radish, Improved Chartier (Beckert).....	Catalogued as a special by P. H. & Co., 1886.

Mr. FORBES. It seems to me that that is not what was intended when this bill was first introduced. These varieties are really the kind of varieties you can get at almost any seed stand or any corner grocery store anywhere in the land, and it seems to me to be a waste of effort on the part of the Department and of Congress to be distributing this kind of seed—these antiquated varieties, these old-fashioned kinds that we have been used to from boyhood up.

SHOULD DISTRIBUTE VALUABLE SEED.

I think if they would turn their attention to newer and rarer and selected varieties of vegetable seeds there would be some good come of this Congressional free seed distribution even if they should send out smaller envelopes and fewer varieties. I know that seedsmen from time to time have tried to get the Department of Agriculture to take that view, and time and again have offered the cream of their specialties, but it has no interest for them.

They simply say that they can not afford to give the prices for these things. Perhaps that is so. We, as seedsmen, have to pay very, very tall prices for lots of these new things. Mr. Burpee, who was here yesterday, told me that he has within the past two months paid several thousand dollars for a new bean just because he thinks it is going to be a good thing for dissemination. We have all had that experience; and when they offered them to the Department of Agriculture they did not want them. They would rather buy onions at 15 cents a pound in California.

CONGRESSMEN DECLINE NOVELTIES.

Doctor GALLOWAY. I beg to differ with you. The fact of the matter is that the Department has made efforts time and time again to introduce these novelties, and has secured time and time again the cooperation of the seedsmen in that direction; but it is not a question of the Department at all. The Department is in a position where it must furnish a certain number of packages of seeds, and that is all there is to it.

Four years ago they made an effort to introduce novelties, and we got some from your firm, I believe, and we got some from a number of firms. We had those things left on our hands. Nobody wanted them, and we could not get rid of them. After that we took the ground that those things are not things to distribute, and under the existing system which has been in vogue for the last forty years, we simply had to give the matter up and go on with the distribution of ordinary seed that is found, as you say, in every store. But I do not think your position is a good one. It is not proper, and it is not right, and it is not justice to the Department to say that they refused them. We never have said that we want a cheap seed, because that is not what we want.

Mr. FORBES. I will have to go higher then. If it is not the Department of Agriculture, it is Congress that has called for this kind of seeds.

Mr. HASKINS. That is where you strike it.

Mr. LAMB. May I ask Doctor Galloway a question?

Doctor GALLOWAY. Certainly.

Mr. LAMB. I understood from you in a previous hearing—and if I am wrong I hope you will put me right—that a considerable portion of these seeds are grown from your own stock.

Doctor GALLOWAY. It is grown only in a limited way from our own stock, Mr. Lamb. It would be impracticable for the Department to handle its own stock as seedsmen handle their stock and furnish to Members of Congress 12,000 packages of seeds. If we were required to furnish only a limited number, we could handle our own stock and could handle our own varieties, as seedsmen do.

Mr. LAMB. I quote from page 6139 of the Congressional Record, Doctor Galloway, in answer to a question of Mr. Scott:

In the first place, a considerable portion of the seed is grown for us out of what we call our own stock.

Doctor GALLOWAY. That is true.

Mr. LAMB. May I ask Doctor Galloway where he gets all of his bulbs of onions from to grow this special stock?

Doctor GALLOWAY. It is grown in California. We buy our seed from California and do not control the bulb stock.

Mr. LAMB. Where do you get your celery seed?

Doctor GALLOWAY. We do not distribute any.

Mr. LAMB. And lettuce and tomatoes?

Doctor GALLOWAY. It is grown in the same way.

Mr. SCOTT. I would like to ask a question bearing on the statement Doctor Galloway made a moment ago. I understood you to say that you had tried to distribute new varieties, but the Congressmen would not accept them, and you had therefore had them left on your hands and were obliged to furnish the common varieties.

My experience has been that the Congressman has had nothing to do with the selection of the varieties that were sent out; that he simply furnished his slips and the Department attached them to the packages of seeds which in their judgment would afford the best results in that district. I am rather surprised to hear the statement that Members of Congress have refused to accept new and unusual varieties. Did you mean to give that impression?

Doctor GALLOWAY. Yes, sir. Four years ago, or five years ago, when this work was first turned over to the Bureau of Plant Industry, one of the kinds of work that we inaugurated was the securing from seedsmen of novelties. We addressed communication to firms like Burpee and Peter Henderson & Co.—

The CHAIRMAN. What kind of novelties?

Doctor GALLOWAY. Rare vegetable seeds, not commonly catalogued, and still to a large extent on the trial grounds. Seedsmen always work ahead and are getting in from different sources and places these promising new things that are sent to them.

The CHAIRMAN. Things not beyond the experimental stage?

Doctor GALLOWAY. Many of them were not, but some had been introduced and were in the catalogues and were controlled by the seedsmen. We gathered together forty or fifty of those novelties in such quantities as we could get—a pound or two of this and a pound or two of that—and put them up in special packages in special colored envelopes to distinguish them from the ordinary seed; and instead of assigning a certain number to each Member, as is the common practice with the ordinary seeds, we wrote each Member a communication stating that we had the seeds, what they were and how to get them, and what we proposed to do with them. We had about half of those seeds left on our hands and carried them for two years, either because the Members did not understand what they were or did not let us know that they wanted to send them out. They were left on our hands.

Mr. CANDLER. How many packages or envelopes were offered to each Member?

Doctor GALLOWAY. I think we had about 500. But the point is this: In all probability those small numbers are really more of a hindrance to a Member than a help, for if he sends out 500 it will make a demand for 5,000.

Mr. CANDLER. And he would get requests that he could not fill.

Mr. HASKINS. I received my quota.

SEEDSMEN FAVOR VALUABLE SEED.

Mr. FORBES. We seedsmen would like it if you would turn your attention to the newer, rare, and more valuable varieties, either at home or from abroad, and give up this distribution of the common, ordinary, and antiquated varieties. I am sure that the Department of Agriculture, from what I have learned from various members of it from Secretary Wilson down, would be glad to have Congress do this also.

Mr. DAVIS. You would like the Department to go to the expense of introducing or propagating this new variety of seeds and then allow the seedsmen to sell them to the farmers at high prices. Is that it?

Mr. FORBES. I beg your pardon, Mr. Davis. We do not look for that assistance. We have been able to take care of ourselves in that way all these years.

Mr. DAVIS. I understood that the first expense in bringing forward a new seed you wanted to get rid of, and have the Department do that, and then allow you to distribute them at high prices?

Mr. FORBES. No; we are willing to go on as we are going; but if Congress wants to assist us to the extent of helping us to find new, rare, and valuable varieties, such as we can not reach, we would be glad to have the assistance. You know, we travel far and near, going to Europe, to California, and sometimes to Australia, and have been hunting for newer varieties for decades. We are doing it, I think, fairly well.

Mr. DAVIS. But as soon as the seed becomes generally known do you not want Congress to stop distributing it and let you distribute it—as soon as it becomes well known?

Mr. FORBES. We have a perfect right to get the same seeds that Congress will be instrumental in bringing into the country. We have a right, in common with the general agricultural public, to procure some of these new, rare, and valuable varieties that the Department will be instrumental in bringing in, and I hope they will be able to show us the way better than we have been doing it thus far.

Mr. DAVIS. But I am getting at the result, when the Department gets the seed established. Then you want them to drop the distribution?

Mr. FORBES. Certainly. It would only become like this list, an antiquated variety. Pretty soon everybody would have it.

I will just close by saying that about the time we last addressed this committee there was a gentleman who came into our office in New York in great trouble. He said he had had a letter from his head office in Detroit, Mich., saying that the Department of Agriculture was about to introduce or prepare for free distribution one of the articles they were manufacturing. I asked him what it was, and he said it was one of their principal things—they were in the medicine business—hog cholera mixture. He said it was something that they had made a specialty of all these years, and it would be a very serious harm if the Department of Agriculture should distribute this free.

He asked what they could do. He said he understood that they had been distributing seeds in this way for years, and asked if we could advise him what to do about it. I said:

We can not advise you one way or the other. We have been trying to get the Department to cease this Congressional free seed distribution for years, and the more we try to get them to take this off, the more they put on.

And, as I remarked when I was here before, an extra \$100,000 was given on that occasion.

GIVE SEEDSMEN A REST.

I think it would be well, if Congress must give things like that to the farmers, that they give something else a turn, and let the seedsmen have a rest. We have really had this thing before us from before the civil war, and it seems to me there are other things that

they could at least try. I do not see why they should not be able, for instance, to send out nitrogen-gathering bacteria. It can be mailed. It seems to me that would be a very valuable thing to distribute, with a Congressman's compliments, to agriculturists throughout the length and breadth of the land. I do not know whether it has occurred to any of you gentlemen to think of that.

Mr. LAMB. I will send out all I can get.

Mr. FIELD. It is sent out, I think, for experimental purposes?

Doctor GALLOWAY. Yes; we distribute about 20,000.

Mr. FORBES. I think that could be done, and if there is anything in it, it would be a very good thing.

Mr. CANDLER. We have done it for two or three years or more.

Mr. FORBES. We do not hear as much of it as of the distribution of seeds. I think it would be a very good thing.

Mr. LAMB. I think one private company complained that we were sending it out when they wanted to make it.

Mr. FORBES. Naturally they would.

Mr. CANDLER. How long have you been in the seed business?

Mr. FORBES. Since 1868.

Mr. CANDLER. You have gotten along pretty well all these years?

Mr. FORBES. Yes.

Mr. CANDLER. It is a profitable business, or you would have quit it long ago?

Mr. FORBES. I suppose so.

Mr. CANDLER. The Government has not broke you up as yet?

Mr. FORBES. Not yet, and I do not think they will. I think I can take care of myself, even with competition. We feel this, as a firm, perhaps less than any other firm represented here to-day. I will tell you candidly that I think the firm I represent feels it less than anyone else. I am here, gentlemen, just for the principle of the thing. I do not want to make you believe that it is damaging us as much as it does some. I have no doubt that some, especially commission houses and houses who do a packet trade, feel this keenly. I know it affects them. I have pretty good reason to know it; but it is not likely to put us out of business, and I do not think it will.

Mr. DAVIS. Do Montgomery Ward & Co., or Sears, Roebuck & Co., of Chicago, handle these seeds?

Mr. FORBES. I think they do. They have a seed department and issue a catalogue. We have lots of competition, but we are quite willing to take care of it as long as it is legitimate.

Mr. C. F. WOOD. Both firms formerly handled these seeds, but I understand that Montgomery Ward & Co. have abandoned the packet-seed trade as unprofitable, in view of the Congressional free seed distribution.

Mr. SMITH. I would like now to introduce Prof. W. F. Massey, of Philadelphia. He was connected with the agricultural experiment stations for a period of about sixteen years. He conducts a large and influential agricultural journal in Philadelphia, and is familiar with this subject from all standpoints. He does not speak as a seedsman; he does not speak altogether as an editor (one of those editors who have been represented as influenced by advertising), but speaks as a man who knows what he is talking about.

**STATEMENT OF PROF. W. F. MASSEY, OF PHILADELPHIA, PA.,
EDITOR OF THE PRACTICAL FARMER.**

Professor MASSEY. Mr. Chairman and gentlemen, as Mr. Smith has stated, I have been connected with agricultural college work and with the stations for a great many years as professor of horticulture and vegetable pathology and with a college in South Carolina, and also with the experiment station there for sixteen years. I have come in contact, not only from the institute rostrum, but through my personal correspondence, with the farmers of that State. I believe that during the time I lived in South Carolina I came in contact with four-fifths of the farmers of that State, either personally or through correspondence. I had a correspondence with the farmers there amounting to over 4,000 letters a year, and during all that time I have never met with a North or South Carolina farmer who wanted this gratuitous seed package given to him.

SOUTHERN FARMERS OPPOSED.

It has been said that the southern farmers are the class who mainly want these seeds; but they do not want to be pauperized any more than the farmers of other parts of the country. I do not think the southern farmers want anything of the kind.

Mr. CANDLER. They do not want it on the ground that they are paupers. Southerners would object to that right away.

Professor MASSEY. No; I say the tendency of anything of this sort is to pauperize the recipient, and that is the one thing I have always opposed. I have consistently opposed this practice of distributing common seeds throughout the country.

I was a delegate, under commission from the governor of North Carolina, at a recent meeting of the National Congress of Farmers at Rock Island, Ill. One of the members of that congress brought to me a resolution which he proposed to introduce opposing this free seed distribution. I said to him:

I want to amend that a little. We do not want to deprive the agriculturist of this country of this amount of money, but we want it better spent, for the benefit of agriculture in general.

The Secretary, as I understand it, has never had as much money as he would really like to have for foreign explorations.

Am I right, Doctor Galloway?

Doctor GALLOWAY. Yes.

Professor MASSEY.

We want to give him more for that purpose and do as we did with that great introduction of durum wheat and other things which the Department has introduced, which have been of great benefit to the country. We want the money expended in that way.

I added to the resolution the item that we wanted this money to be diverted from this useless and wasteful practice to the real benefit of agriculture by foreign exploration, getting new things that may be of value. Why, this macaroni wheat has grown in a few years to be a \$10,000,000 crop. A thing like that is worth more than twenty years of this common-seed distribution. The reason I want this abolished is not because I am particularly sympathizing with the seedsmen (and it is, as you are perfectly aware, an interference

with their business), but because it is a waste of the public funds which might be devoted to the real benefit and advancement of the agricultural interests. We want that money retained for the use of the Secretary of Agriculture to do for the country what the Department ought to do.

Now I have as a writer for the agricultural press for the last twenty or thirty years consistently opposed this practice. Since I have been editing a farm paper I have been continually trying to bring to the attention of the people the fact that it is one of those things which makes the deficit in our postal arrangements. Not that I believe any deficit is undesirable. I do not care really what the post-office costs, because it is for the benefit of the whole people. I do not think we ought to try to make money out of it, but it is one of those things which makes this great deficit which prevents the country people having the benefits that they might derive from an extension of the free rural delivery and the carrying of packages by carriers, and so on. It is one of those things which prevent the cultivation of their thoughts.

Mr. DAVIS. I am informed that certain public documents in the form of magazines and newspapers are being carried through the mail at a loss to the Government. Would that not be a good way to stop this deficit, to have the publishers pay at least what it costs the Government to carry them?

Professor MASSEY. I would rather discuss that with the Committee on Postal Affairs. [Laughter.]

Mr. DAVIS. I am perfectly willing that you should.

Professor MASSEY. I do not believe the second-class postal arrangement is responsible for anything of the sort.

Mr. DAVIS. I am not asserting that it is. I had heard that state of affairs existed, and as you were solicitous about the deficit I thought I would mention it.

Professor MASSEY. I do not believe that. I think the cheapening of postage to the people in general is one of the greatest educational forces we have.

Mr. DAVIS. I agree with you.

Professor MASSEY. We want to do as much as possible of that, and I say that I do not want the post-office to be a money-making institution. It is just like anything else. Our churches are not money-making institutions. We give our money to them though. We would have a great deficit if we counted all the money we gave to churches, and counted all that we gave to other benevolent institutions, and so on. The post-office is for the benefit of the people. Let us have it, no matter what it costs.

But this seed business—the point I want to make is that it is a waste of public funds that might be better devoted to the real interests of the agriculturists of this country, if used in another way. I believe the Secretary is doing all he can for the benefit of agriculture, but he is compelled to do some things which are not really for the benefit of agriculture, but which, as I said, are really tending to pauperize the people.

The CHAIRMAN. And for the benefit of Congressmen.

Professor MASSEY. And for the benefit of Congressmen; yes [laughter]—used as a little taffy.

Mr. HASKINS. Let me ask you a question right in this connection. From your inquiries that you have made, you say you never have found a farmer in the South who desires the free distribution of seed?

Professor MASSEY. Yes.

Mr. HASKINS. If that is so, how do you account for the fact that the Representatives in Congress from the South are practically solid for the free distribution of seeds?

Professor MASSEY. Well, I suppose it is because they have an idea that they can throw taffy to the farmers, and get some votes: [Laughter].

The CHAIRMAN. And you think they are mistaken in that idea, do you?

Professor MASSEY. That is my idea about it.

Mr. FIELD. But if the farmers did not want the seed they would not appreciate it, and it would not do any good.

Professor MASSEY. No.

Mr. DAVIS. What is that?

Mr. FIELD. I say, if the farmers did not want it and really rejected it, the sending of the seed by the Congressmen would not accomplish the purpose you have mentioned?

Professor MASSEY. No; that is true, and I do not believe they have accomplished much.

Mr. DAVIS. May I interrupt you?

The CHAIRMAN. Mr. Davis desires to put a question.

Mr. DAVIS. In that connection, following up the line of your argument, if the Congressman could throw enough taffy to the farmers he would never be defeated, would he?

Professor MASSEY. I do not agree with that. I say that is the Congressman's idea. I do not say that he is correct in his notion at all. I did not say he was correct. [Laughter.] I say that seemed to be the idea of some Congressmen, but whether he would succeed in that idea or not is a different proposition altogether. I do not think the practice should be discontinued for that reason at all.

I have been opposed to it consistently through all my life as an official in the State agricultural experiment station and as a writer for the public press and the farm press; and I have consistently opposed it on the sole ground that it is a diversion of the money of the public to a practice which is utterly useless and pauperizing, and which money might be used in a way that would be of real benefit to the agriculture of the country. I believe that is about the only point I wanted to make on this subject. I would be glad to answer any questions that any gentleman wishes to ask me.

Mr. SMITH. Professor, if you will pardon me, you have not spoken about the Farmers' National Congress, except to refer to it. I do not believe you finished what you started to say.

FARMERS' NATIONAL CONGRESS.

Professor MASSEY. I referred to it, but I do not believe I completed what I wanted to say there. I said that this resolution was shown to me and that I added to it that we were in favor of the diverting of this fund from this practice and to give it to the Secretary of Agriculture for foreign exploration, for aid in farmers' institutes,

and for other purposes which might be of real benefit to agriculture. He agreed to that. I tacked it on. I was a member of the committee on resolutions. When it came before our committee it looked a little awkward in the shape in which it was presented, and I suggested that we have a subcommittee to put it in better shape and have a substitute, which we did.

When that substitute came before the congress I asked for a rising vote. There were 1,000 members there from 30 States; from Texas, from Louisiana, from Arkansas, from Florida, North Carolina, South Carolina, and other Southern States, and other States north and west as far as California. I asked for a rising vote, and every man in that congress stood on his feet, and not one opposed it. They were all farmers—sent there because they were farmers, and coming from 30 States. There was not one solitary vote opposed to it. It was very gratifying to me because I had had a personal interest in the matter all my life. I had been fighting it consistently, and I was very glad the resolution was introduced. I did not introduce the resolution myself, though I would have done so if the other gentleman had not done so, and I was very glad that we got it in the shape we did, because it favors the giving to the Secretary of abundant means for doing what he ought to do and what he has been wanting to do.

Mr. CANDLER. Then you would not favor any reduction in the amount of the total appropriation, would you?

NO REDUCTION IN TOTAL APPROPRIATION.

Professor MASSEY. Not a bit in the world. Let the Secretary have all the means he wants to do real good for the farmer. That is what I want. I want him to have all the money he needs. But do not throw it around the country in this way. Why, when they used to send packages to me—I used to get seeds from the Department, as an experiment station officer. I got the new things that were introduced for experimental purposes, and, of course, I took care of them; but when a Congressman sent me these seeds, the first dorky that I would see I would say “Here, Uncle, don’t you want that?” And he would take it. He would take anything you would give him. Otherwise, if I didn’t happen to see a dorky I would feed them to the English sparrows.

Mr. SMITH. I would like to ask Professor Massey one question, because he can speak on this, and the matter was brought up yesterday. Professor, you edit a large agricultural paper. Have you ever had an intimation or a suggestion, or a letter in any shape, manner, or form, from a seedsman threatening to withdraw his advertising if you did not oppose “free seeds?” I do not know that there is any seed advertising in your paper, but presume there is.

Professor MASSEY. Oh, yes; I carry seed advertisements.

Mr. SMITH. Have you ever had any intimation by any seedsman that if you did not oppose the free seed distribution they would withdraw their advertising from you; or that if you did support the antifree seed movement they would give you more advertising? I will say, for the benefit of the committee, that I have never spoken with Professor Massey on that subject. He may fool me. I do not know.

Professor MASSEY. I never heard of a seedsman making any such suggestion one way or the other. We advertise with all the seedsmen in the country. Our paper has a larger circulation in the South than any farm paper, I think, published north of the Potomac.

Mr. CANDLER. What is the name of your paper?

Professor MASSEY. The Practical Farmer, of Philadelphia.

Mr. HASKINS. Where is it published?

Professor MASSEY. In Philadelphia. I was editing that paper before I left North Carolina, and finally I gave up my official connection there and took charge of the paper last year. As we get a little older, you know, we want to get things a little easier. I thought perhaps I was working a little too hard down there, and I concluded I would go to the city and live. That was the only reason. But I have never known of a suggestion from any seedsmen in this country that they wanted us to advocate the abolition of the free seed distribution, or any threat to withdraw their patronage. I never heard them make any argument in regard to it.

NO PRESSURE ON AGRICULTURAL PRESS.

Mr. BROOKS. There has been no pressure, direct or indirect?

Professor MASSEY. No; neither one way nor the other. I never heard any suggestion from the seedsmen; but I simply wanted to put it before you gentlemen on the broad ground that it was not a proper use of the public funds. We want the funds, and the farmers want the funds. The Department wants the funds. But let us have them used properly.

Mr. HASKINS. I suppose this congress of farmers to which you have alluded was composed of what some of us gentlemen call "kid-glove farmers," who never stood between the plow handles?

NO KID-GLOVE FARMER.

Professor MASSEY. You remind me of a man in North Carolina who met me at the farmers' institute as I was going in the courthouse. I have lectured in every county in North Carolina to the farmers. He stopped me and said: "I want to ask you some questions. Did you ever farm any?" "Why," says I, "I would be very foolish to go around the country trying to teach farmers how to farm if I had never farmed any myself." "But," he says, "I mean did you ever plow any yourself?" I said, "Yes, sir; and I have got \$5 in my pocket to bet that I can beat you plowing a field." He said, "I have a piece of ground that I want to get ready for turnips. I would like to have you teach me how to plow." I said, "You get me a good Oliver chilled plow and I will show you how to plow."

He says, "Well, I have a mule and a plow." I said, "That is what I knew." It has been the ruination of the southern people, breaking that red-clay land with a plow and one mule. I said, "You want three mules abreast and an Oliver chilled plow, or some other good plow, to break that land with." In a little while that fellow found out that I knew something that he did not know. He was very much astonished to hear about breaking that land with three mules abreast to a plow. I got him in there and I never saw a man more interested in getting information than that man was. He became satisfied that

we did know something that was of practical use. As I told him, I had plowed with everything that he ever plowed with, even down to a steer.

Mr. DAVIS. Professor, if this question that I am about to ask you seems personal or impertinent you may refuse to answer it and I will take no offense. I would like to ask you if you made a success, financially and otherwise, as a farmer.

Professor MASSEY. Yes, sir.

Mr. DAVIS. I will tell you the reason why I ask the question. I know of a certain gentleman who attempted to farm, and had a reasonably large farm in one of the Northwestern States. He followed the business for four or five years and made a failure of it. To-day he is at the head of the farmers' institute, teaching farmers how to farm.

Professor MASSEY. They make those mistakes in many States. I became a station officer and a college professor, largely, and, in fact, mainly, because I had made a reputation as a farmer.

Mr. DAVIS. I presumed as much, but I thought I would like to ask the question.

Professor MASSEY. I have at home a letter from my old friend, the late Peter Henderson, of New York, written only a little while before his death. I had just been elected on the first faculty that was selected for the North Carolina college. Mr. Henderson wrote: "I am very glad to learn that one college in the country has put a man in a chair who is not a 'kid-glove' man; that is, a man of real practical experience." I have seen so much of this "kid-glove" affair that I have become disgusted with a good many of the colleges because I have had some of their graduates to come to me after having been through a course of horticulture, and they did not know anything at all about the matter. As I say, my position was due to the fact that I had made a reputation. I thank you, gentlemen.

Mr. SMITH. Mr. Chairman, I will now present Mr. J. F. Jackson, editor of the Southern Planter, of Richmond, Va.

STATEMENT OF MR. J. F. JACKSON, EDITOR OF THE SOUTHERN PLANTER, RICHMOND, VA.

Mr. JACKSON. Gentlemen, I do not know that I could do better than to say at once that I can say "ditto" pretty much to all that Professor Massey has said. Like Professor Massey, I have been engaged consistently in opposing this free seed distribution for nearly twenty years. As editor of the Southern Planter I have opposed it precisely upon the same grounds Professor Massey has opposed it. I believe the money could be much more wisely used for other purposes.

I have always thought so. I have always thought that it was a very foolish thing to be giving 5-cent packages of seeds to farmers up and down the country, and especially southern farmers, the majority of whom have a supreme contempt for small things. I have always found, in dealing with the southern farmer and in trying to get him to take hold of anything, that he wants to do it on a large scale. They are men who have been accustomed to plantations, and not small farms and gardens, and if you talk about entering upon an

experiment in which he is to use a few acres of land he immediately thinks it is not worth his attention at all. I am sure the majority of them think it is not worth their attention. So in sending about 5-cent packages of seed the consequence is that they do not get sown, and the money is wasted. I have always opposed it on the ground that Professor Massey has stated.

MONEY COULD BE BETTER USED.

I think the money could be very well used by the Department of Agriculture in doing a much greater work than this for the benefit of the farmer, especially the benefit of the farmers of the South. I think there are many ways in which it could be wisely used. One way that occurred to me at the moment, after I had risen to my feet, was the institution of experimental work. You know at present we have one station in a State. Our States are large and varied in character. Look at the State of Virginia, for instance. We have practically five different climates in Virginia, beginning at the seacoast and going to the top of the mountains, 5,000 feet above the level of the sea. Our experiment station is located on the edge of those mountains, 2,000 feet up. The work they do there has no more interest and no more benefit to the farmers on the Atlantic seaboard than if it was done in the clouds.

You can not grow the same crops or do the same kind of work. If this money was given to the Secretary of Agriculture, and he could take it and establish stations and substations in connection with the main station in different sections of our State, it would be of great benefit. On the seacoast they have one class of crops, and if you go into middle Virginia, which rises 200 or 300 feet above the level of the sea, you have there another kind. In another section, the Piedmont section of Virginia, where there is quite another climate, you get another class of crops. The one main station could do the work of southwest Virginia, while the sub-station could be doing an immense work for the benefit of our people in the eastern, middle, and Piedmont sections of the State, where they get no benefit, or practically no benefit, whatever from the present arrangement.

The money could be wisely used for that purpose. I would like to see it taken further than that. There is no reason, in my judgment, why there should not be an experimental plant in every county in every State. Let there be experimental plants conducted by practical farmers under the supervision of the experiment station officers, and bring these schools right home to the farmers, so that they can look at them without having to go long distances. They do come, but only in limited numbers, to our stations. It was only last July when nearly seven hundred-odd farmers went to southwestern Virginia, some traveling 300, 400, and 500 miles, in order to see the work that was being done, and they paid for it out of their own pockets. They paid their own fares and went to the station. They spent the day there and learned things that they could not have learned in any other way. Why can not the money be used to let them learn these things at home, instead of wasting it in throwing these packages away?

SOUTHERN FARMERS NO FREE-SEEDERS.

I want to say, further, that I entirely agree with Professor Massey upon the question of the farmers not asking for these things. I do not believe one-third, or one-tenth, ever ask to have any of these seeds. Like Professor Massey, I have had some kind friend or another who sends me these seeds. I put them on my office table. I do not want them. I have said to the farmers many a time, "You can have some of these seeds," and they don't want them.

The CHAIRMAN. Do those seeds influence your vote?

Mr. JACKSON. My dear sir, I have to confess the fact that I have not a vote, and therefore it does not make any difference to me. It would not make any difference to me. I do not want to put it on the ground that it would make any difference with the farmers' vote at all—the giving of those seeds. I do not think Congressmen look at it in that way. They look at it as a matter of courtesy and kindness and thoughtfulness to send a man something. If they could send something much more useful, I have no doubt they would gladly do so. If they were able to say, "I shall not be able to send you in the future any more seeds, but I have arranged that the money be spent so that you can have agricultural experiments conducted at home, and I send you, with my compliments, the privilege of using that; go there and use my name and ask them to give you what information they can," that would be a thousand times more valuable than for them to have all the common seeds you can send to them.

I do not think it will do any good, either, in the way of their making experiments with these seeds. They certainly do not report the results of any experiments that they make with them. I believe the Secretary of Agriculture says that they do not any of them report, scarcely. I do not think it ever made any difference in the votes that the Congressmen who distribute most of the seeds in those sections get. I believe it is practically a waste of labor, time, and money. As Professor Massey says, we want money. For God's sake, do not stop that. Let the Department have it. Do not stop the appropriations. Let us have the benefit of all the money we can get, but do not waste the money that could be wisely used in developing the greatest industry of this country.

PRESS NOT INFLUENCED.

Mr. HASKINS. Mr. Smith, will you ask him the same question you asked before about advertising?

Mr. SMITH. Yes. Will you answer that question?

Mr. JACKSON. Well, I have been the part owner and main owner of the Southern Planter for twenty years. I am the editor and publisher of the paper, and such a thing was never mentioned to me. I never heard of such a thing—of any influence being endeavored to be used by any seedsman. I suppose we carry as much seedsman advertising as any paper published and circulated in the South, and I never heard of such a thing; and I want to say, further, that if any seedsman had ever made such a suggestion to me his advertisement would never have appeared in my journal as long as I conducted and owned it.

Mr. LAMB. As I well know, you represent a valuable paper.

Mr. JACKSON. I thank you.

Mr. LAMB. I have been reading it for thirty years.

Mr. JACKSON. I know it and I appreciate it.

Mr. LAMB. As you well know, I represent in part Richmond city, that is about one-half, and eight counties of the State.

Mr. JACKSON. Yes.

Mr. LAMB. Your paper goes to the farmers of those eight counties?

Mr. JACKSON. Yes, sir.

Mr. LAMB. Of course we all know you are opposed to this distribution.

Mr. JACKSON. Oh, yes.

Mr. LAMB. How comes it, then, that when I spoke at all those counties during the last canvass and spoke to the citizens before me—and they represented the farmers of all classes, kid glove (if there is any of them left there) and others—and asked them to instruct me on this point, that if they wanted the distribution of these seeds discontinued to say so, invariably they said: "What matters a small appropriation of \$132,000 if it helps some of our poor farmers? We, as larger farmers, do not regard it as interfering with anybody. We have gotten some rare seeds, and we have gotten our improved lettuce, watermelons, and cabbage, that have been helpful." How happens it, if this thing is wrong, and these farmers deal in large matters and not in small, as you say, that they do not make some protest?

Mr. JACKSON. I can only understand that in this way—that the majority of them do not for one moment consider how best the money could be spent. They say it is a small matter, and they say some poor farmer or some poor colored man can get a package of seeds and it may do him some good, and they do not take any interest. They say, so far as that is concerned, that the amount is so small that it can not affect them individually as taxpayers.

Mr. LAMB. That is for the country. In the city of Richmond there are 100,000 people, and 10,000 laboring men working in the factories there. There are 600 or 700 factories, you know, in Richmond.

Mr. JACKSON. I know.

Mr. LAMB. How is it that I can show you letter after letter asking me to send them these seeds to plant in their small gardens?

Mr. JACKSON. I have no doubt you can. I never knew of anything being given away where you could not find somebody willing to take it. There is always somebody ready to take it. But as an answer I might say that you know, Mr. Lamb, I have been consistently opposing this, and I have never heard a single objection from any of my numerous subscribers. I have thousands of subscribers and, I suppose, 100,000 readers every month. My attitude has never been objected to. I think that many people take it in the way that has been spoken of here to-day—as a little courtesy and compliment. They think it may do some poor fellow some good and it does not do the larger man any harm; but I think the money can be more wisely expended.

I think if I had the opportunity of talking to them in a public meeting, and of showing them, I could turn the meeting right around, and they would say, "Take that money and expend it in the way you suggest, and we think it will do more good than we get out of these seeds." I think you agree with me that if we could bring that thing

down as we ought to and place an experimental station in Charles City County and Goochland County, in which we could show the men how to grow crops more extensively, as they have done in Appomattox, you could make twice as much out of the tobacco crop in Virginia. If they used scientific methods instead of the old methods, they would get tobacco a thousand times better than they would get otherwise.

Mr. LAMB. You are an enthusiast along some lines. If you were a member of the committee and had to meet the objections of the chairman when you asked for an appropriation, your enthusiasm would have a wet blanket.

The CHAIRMAN. What is that?

Mr. LAMB. I say if he was a member of the committee here and had to ask for these appropriations, with your earnest protest against it, his enthusiasm would have a wet blanket.

Mr. CANDLER. The total amount for the purchase of seed of this character sent out for Congressional free distribution, the cost of putting them up, putting labels on them, and sending them out, is \$132,000.

Mr. JACKSON. Yes.

Mr. CANDLER. How far would that go toward establishing experimental farms in every county in the State?

Mr. JACKSON. It would not go very far, but it would make a beginning. Fifteen thousand dollars is all that has been appropriated by the National Government until these last few years for the starting of the experimental station in a State.

Mr. CANDLER. It would not establish experimental farms in every county in the State of Virginia?

Mr. JACKSON. Fifteen thousand dollars is all that has been expended in starting the experimental station for a State.

Mr. CANDLER. That has been doubled in the bill already passed.

Mr. JACKSON. That is what has been done, I say.

Mr. CANDLER. We were discussing the point about establishing experimental farms throughout the State for \$132,000. It would be impracticable.

Mr. JACKSON. It is like establishing an experimental station first in a State. You start it with a small sum, and when you get more than double the amount of work you increase the money. One hundred and thirty-two thousand dollars would go a long way. Such experimental farms could be started on from \$200 a year upward.

Mr. LAMB. You would not have us discontinue this appropriation for flower seed, would you?

Mr. JACKSON. I think the whole thing ought to go by the board, and a better use made of it. I am a greater lover of flowers, I think, than you can be. I have loved flowers all my life, and I am, perhaps, one of the very few who in the city have devoted some time and spent money in putting a greenhouse up and growing flowers. My neighbors come and say to me "Do you sell flowers?" I say "No, I grow them for my own pleasure." I never sold them in my life, and they think it a very foolish expenditure of money. They are willing to buy some flowers now and then, but not to grow them.

Mr. BROOKS. Your objection goes to the distribution of common seeds. Would you object to it if the distribution were confined to rare or new varieties?

Mr. JACKSON. No; I think it a wise expenditure of money. The introduction of that durum wheat has been of infinite value. The Secretary of Agriculture could find hundreds of things that could be brought here from different sections of the world, and in a year's time we could make millions of money, where we are not now getting anything at all.

Mr. SMITH. I would now like to introduce Mr. E. J. Reichelm, of Bayonne, N. J., who appears, not as a seedsman, but as an individual taxpayer.

STATEMENT OF MR. E. J. REICHELM, OF BAYONNE, N. J.

Mr. REICHELM. Mr. Chairman and gentlemen, I am not in the least interested in the seed business, and the only reason I am here is because I am interested, merely socially, in my friend, Mr. Forbes, of the firm of Peter Henderson & Co.

We met socially, and this matter came up of the free distribution of seeds, and he asked my opinion of it as a mechanic and a manufacturer, and I gave it, and he induced me to come here. Now, my opinion is simply this: The welfare of all of us, whether we are agriculturists, or mechanics, or manufacturers, whatever we are, depends upon the general welfare of the country, and no man has a right to get anything from the Government except his share of the general welfare which is created under its auspices. I do not believe in giving any man any advantage over any other man. I do not believe, sir, that the farmers are entitled to any gratuity. They are, however, entitled to be encouraged as we are by the General Government through the establishment of institutions that are educational. We have such an institution in behalf of mechanics in the Bureau of Standards, recently established—a magnificent thing. It does that which we could not do ourselves. It would cost too much to make certain experiments.

It would cost the individual manufacturer too much to go into it, but by bringing this matter to the attention of this Bureau of Standards the whole Government and a certain appropriation is behind it to carry that experiment to a success and to teach us new things. In the same way, I believe the farmers should be assisted. They are the backbone of our prosperity, upon whom every other industry rests, and I certainly do not come here to oppose anything that would be for their benefit; but I do oppose the profligate use of the public funds for any class, and I do believe, whether it is \$62,000 or \$132,000 or 15 cents, this Congress has no right to appropriate money for the purpose of distributing these seeds among a class of people. That is my standpoint. I wish I could influence you to increase the appropriation and apply it as the last two speakers have proposed.

Mr. SMITH. I now wish to introduce Mr. Walter P. Stokes, of Philadelphia, Pa.

STATEMENT OF MR. WALTER P. STOKES, OF PHILADELPHIA, PA.

Mr. STOKES. Mr. Chairman and gentlemen, the two gentlemen who have spoken for the press have largely taken away my thunder, but there is one point that I would like to call to your attention. There seems to be, if I can interpret the atmosphere of this committee, a

spirit of antagonism toward the seedsmen. I would like to disabuse your minds a little on that point. We are a part of this great agricultural question.

We are working along parallel lines with the Department of Agriculture. Mr. Burpee, whom I met yesterday, has probably the largest trial experimental grounds ever conducted in this country. It costs him thousands and thousands of dollars annually. I have a smaller one, which is of very great usefulness to me and to the farmers in my neighborhood. Those of you who are not expert gradeners, who are not in this direct line, have little appreciation of the value that it is to the planters to come along, for instance, and see a long series here of lettuce varieties, say, 25 or 30 varieties, all planted on the same day. He can see what the varieties are that particularly appeal to him. All of these things along educational lines are of vital interest and are vitally attached to the agricultural interests of this country.

It is exactly along parallel lines with the work that Professor Galloway, under the Secretary of Agriculture, is conducting. Professor Galloway's head is chock full of things that are of vital interest to this country, and I plead with you gentlemen that you take a larger view of this matter and let him work them out. Give him the money to do it. Is the man who accepts the gratuity the man who is going to help agriculture out in this country? I want to ask Mr. Davis, of Minnesota, if the man who will accept—let alone ask for—a gratuity is the man who is going to help agriculture in your State?

MR. DAVIS. I do not consider it a gratuity. Therefore your premise is wrong; and I want it understood that I am not antagonistic to the seedsmen, either. My people—and I have perhaps 200 or 300 relatives—are farmers. I am told they spoiled a good farmer to make a poor lawyer and a poor legislator out of me. I am not antagonistic to the seedsmen. I have been connected with farming all my life, and I am not antagonistic to the farmer. Your premise, so far as my constituency is concerned, is all wrong.

MR. HASKINS. Put the question to Mr. Davis leaving out the word gratuity—whether a man who received a package of those seeds is helping or aiding the interests of agriculture?

MR. STOKES. That is what I mean.

MR. DAVIS. They claim to me that they are. There are about 80,000,000 people in the United States, and the gratuities farmed out at the present time throughout the United States to manufacturers, seedsmen, and every other class in the United States, from the Navy down, are so monumental as compared to what seems to me so insignificant a matter that men representing the interests you do ought not to oppose it. That is my idea.

MR. STOKES. I beg to take issue with you.

MR. DAVIS. Certainly; we take issue right there.

AGRICULTURAL DEPARTMENT SHOULD HAVE MONEY.

MR. STOKES. The point I make is this, that that \$132,000 expended in that distribution, if that money had been given to the Secretary to use along the lines of scientific work that he is conducting, infinitely more beneficial results would obtain than could possibly obtain from

that simple little garden that you give, and which they can get from any corner grocery store in the land.

I had not expected to go into this opposition as much as I have, but the point I want to make is this: That all of that appropriation—and we want you to make it just as large as you will—can be used to the very best advantage by the Department along the larger lines which will benefit the greater number.

There is just a slight instance of the introduction of a new thing, and it is difficult for you, perhaps, to appreciate what it means oftentimes, but you can realize it in that introduction of the durum wheat. The same thing happened in the introduction of the new tomato in southern New Jersey a few years since. That whole section has profited by the introduction of that one single new thing, to the extent of hundreds of thousands of dollars. The farmers have paid off their mortgages. They are getting \$1.25 and \$1.75 a basket for their tomatoes, whereas they used to get from 25 to 30 cents a basket, and it means just the difference between success and failure. So in pleading for these better varieties we are pleading not for the assistance of one or two or three or more little bits of gardens, but we are appealing for the larger interest of the larger number.

I am sure this money will do infinitely more good if used in other ways, and furthermore we want to free the Department of Agriculture from the necessity of the labor and the attention to details of all this thing, and let their minds be free from it. Let them be able to give their entire attention to this scientific work which is so valuable, and which they are so thoroughly equipped to carry on.

Mr. DAVIS. Will you permit an interruption?

Mr. STOKES. Yes.

Mr. DAVIS. I distributed last year, I think, and the year before, 30,000 to 35,000 Farmers' Bulletins among the farmers of my district.

Mr. STOKES. That is magnificent work.

Mr. DAVIS. And I gave them all they desired. Of course my quota was not equal to it, but I succeeded in purchasing them where it was desired. Still, there are many, many farmers in my country who are foreigners, of all nationalities, and who can not read the English language. Hence, while I am an advocate of sending these Farmers' Bulletins to them and believe it is most beneficial, still there are a large number of people in the West and Northwest who can not even read those bulletins.

Mr. HASKINS. Their children can read the bulletins for them.

Mr. DAVIS. Probably that is true, or will be, and when they can do it I will let down, probably, on that question. They have not lived in the East. They belong in the West, where the durum wheat is raised. They can raise it. I live in the country bordering North Dakota, where nearly all of the durum wheat in the United States is raised, and it is not limited to \$10,000,000 worth this year, I think. It is nearly double that.

Professor MASSEY. Will you permit me to say that they might issue the bulletin in their own language. I once wrote a bulletin in French for some Frenchmen.

Mr. DAVIS. I am in favor of that, but still I desire to encourage the use of English as much as possible. I want to advance the farmers' interest as fast or faster than anybody.

NO SEED TRUST.

Mr. COLE. The statement was made on the floor of the House last year that some of the Members were in favor of the free distribution of seeds because of the trust existing between these seed firms of the United States. Is there any trust?

Mr. STOKES. There is absolutely no trust whatever. It was attempted at one time, years ago, and it ended disastrously. It was absolutely impossible to have a trust in seeds.

Mr. LAMB. I have never heard of it.

Mr. STOKES. There is no foundation for it in fact whatever.

Mr. CANDLER. Is there not concerted action among those representing the opposition to the free seed distribution?

Mr. STOKES. Yes.

Mr. CANDLER. Have they organized headquarters here in Washington to oppose it?

Mr. STOKES. Mr. Smith can talk to you about that.

Mr. CANDLER. Do you not know?

Mr. STOKES. Yes, sir.

Mr. CANDLER. You are one of the seedsmen?

Mr. STOKES. Gentlemen, I claim that as seedsmen we are bound to do it. We are bound to place our case before the people.

Mr. CANDLER. I want to know the fact about it.

Mr. STOKES. If we have a proper sense of the dignity of our business, we are bound to do what we can to present to the people in general what we believe to be the facts.

Mr. CANDLER. I do not oppose any man doing what he deems legitimate and right, or any man doing anything that is legitimate and right to protect his own interests and sustain his own business; but I asked questions here yesterday along this line, and I want to know whether that is the fact or not, because when this matter was under consideration before the second vote was taken in committee I heard, and it was stated in the Washington Post, that there was a hurried meeting of seedsmen from all parts of the country at the New Willard Hotel, and that they determined there to use such means as they could, and to put up such funds as were necessary to prevent the continuance of this seed distribution; and this paper stated, according to my recollection of it, that they expected to use the press to create public sentiment in that way. I heard that they raised \$3,000 there then.

Mr. STOKES. No.

Mr. CANDLER. And that they have raised a fund since of \$20,000.

Mr. STOKES. No, sir; that is all in the air.

The CHAIRMAN. If they sent any money to Members, I did not get any. [Laughter.]

Mr. STOKES. That is all in the air.

Mr. CANDLER. But you got concerted action?

Mr. STOKES. Yes; or we would not have been here to-day together.

Mr. CANDLER. You stated a moment ago that Mr. Smith is in charge of your headquarters here at Washington to bring about such sentiment as he can in opposition to this appropriation.

Mr. STOKES. Yes.

Mr. CANDLER. And it takes money to do that?

Mr. STOKES. It takes some money to do that. It is perfectly proper and legitimate. We feel that a wrong is being done to us, and if we can do anything in a fair way to correct that wrong we are going to do it.

Mr. CANDLER. You stated a while ago that you would like to see this money given to the Department of Agriculture to make these experiments with reference to the introduction of foreign and rare seed, and so forth, and so on. Do you agree with the gentleman—I do not remember who it was now—who stated a while ago that as soon as these seed experiments were made and the benefits were derived from them and they were given to the people, and the seed should become to a certain extent common seed throughout the country, then you would oppose the further distribution of that seed by the Department of Agriculture?

Mr. STOKES. Yes.

Mr. CANDLER. And would favor the distribution of it by seedsmen?

Mr. STOKES. Yes; I think that would be eminently proper.

Mr. CANDLER. In other words, then, you want these experiments made by the Department of Agriculture at the expense of the public for the benefit of the seedsmen of the United States, and not for the benefit of the people?

Mr. STOKES. No, sir; it is for the benefit of the people. There is no such thing as the benefit of the seedsmen.

The CHAIRMAN. I suppose the attempt to exterminate the cotton boll weevil is along the same line. I suppose you object to the Government paying for that, do you not?

Mr. CANDLER. It affects the country, because cotton is the great leveler between this and all the countries of the world. Last year the exportation of the cotton crop was a million dollars a day every day in the year. The exportation was, in fact, \$401,000,000, and but for that we would have had the balance of trade against us.

SOMETHING BETTER.

Mr. STOKES. I would like to ask this. I realize the fact that we are asking to take something away from you that you have had, and you want something in its place; and we want to give you something in its place that is better. Would you not rather have the Department, after exhaustive tests in long staple cotton, present to you some seeds of that long staple cotton to distribute among your constituents, rather than to give them a little garden seed?

Mr. CANDLER. They are doing that. We get some cotton seed for distribution in our section. They give us 80 packages. I have nine counties in which to distribute that, and I distribute it in different sections of each county, in order that I may give it to the people as far as possible throughout each county.

Mr. WOOD. Will you allow me to answer the question that has been asked? You asked if the Department of Agriculture introduced this new variety of seeds, whether the seedsmen should then take it and sell it and the seedsmen get the benefit of the Department's introduction of the seed. Is that the question?

Mr. CANDLER. Whether he would then oppose the distribution of the seed by the Department and insist that it be distributed

through the seedsmen of the country. This gentleman stated that he would favor it, and another gentleman stated that also.

FARMERS SELL SEED.

Mr. WOOD. I will answer that. The Department of Agriculture introduced this durum wheat. One of the seedsmen, a gentleman who sells durum wheat, told me that when a farmer raises a crop of durum wheat he sells it as wheat and not as seed. Can you control the crop of a farmer? If W. Atlee Burpee spends \$2,000 or \$5,000 and introduces a bean, does Mr. W. Atlee Burpee get protection on that bean? If Mr. Stokes buys that bean from Mr. Burpee and he raises a crop of it, what is to prevent Mr. Stokes from selling it next year as seed?

Mr. CANDLER. Nothing.

Mr. WOOD. There is no way to prevent it. There is no patent and no protection whatever. A seedsman may spend thousands and thousands of dollars for the introduction of new varieties, and there is absolutely no protection to that seedsman that he shall have the sale of that product.

Mr. CANDLER. Then the conclusion from your argument is that the farmers would plant the seeds and reproduce them and sell them themselves, and the seedsmen would go out of business?

Mr. WOOD. They do it all the time. If you sell a new and improved variety of seed in a neighborhood where the farmer pays, say, \$3 a bushel, and he finds that he has a crop that is 10 or 15 per cent better than that of anybody else, he sells his seed to everybody in that neighborhood. There is no protection to the seedsmen or to the Department of Agriculture in the introduction of new varieties.

Mr. SMITH. I now wish to introduce Mr. F. W. Bolgiano, of Washington. And at this point I would like to say that I have some matters in connection with this subject which I would like to present to the committee. I am at your disposal at any time. I think I could finish what I have to say in twenty minutes, if you could hear me after Mr. Bolgiano has concluded.

The CHAIRMAN. We will hear Mr. Bolgiano, and at the conclusion of his remarks the committee will decide whether they will hear you now or at some other time.

STATEMENT OF MR. F. W. BOLGIANO, OF WASHINGTON, D. C.

Mr. BOLGIANO. Mr. Chairman and gentlemen, this free distribution of seed has been gone over so thoroughly from the standpoint of the seedsmen that I hardly know at what point I could make any further suggestions; but as I came into this room yesterday my eyes wandered around and I noticed these beautiful pictures of very fancy and prize stock. My thought immediately turned to the free distribution of the common varieties of seeds. If the person who introduced this fine collection of stock had sent around the old Texas long-horned steer these walls would not at the present time have pictures of this improved stock on them.

The Department of Agriculture, as I know—and I am personally acquainted with a number of the gentlemen in the Department of Agriculture—have striven to introduce, to the best of their ability,

the new varieties of seeds. They want to do it. They are making experiments to the utmost extent, and to the last dollar, for the benefit of the farmer. It was asked yesterday, What does the farmer get out of the Government? Why, he gets protection, like the manufacturer. He gets a great many things that manufacturers do not get; but where a man can make one blade of grass grow 1 inch higher, or one blade of wheat grow one kernel more of wheat, he has done for this country more than the free distribution of seed of a common variety will ever do. There are men making experiments in the Agricultural Department, and I know it, who are trying to produce a longer spear of grass.

Here, outside of Washington, I can take you, within a few minutes' ride, to a farm where a few years ago the maximum amount of stock that could be kept safely on that farm was 25 head. It was a farm of just about 100 acres. Through the experiments of the Agricultural Department, and through the knowledge derived from the Agricultural Department, to-day that man has 100 head of stock on that 100-acre farm. You say, "Oh, well, that man is an intelligent man. That man is a man who understands his business."

Is not that man an education to every man in his neighborhood? I do not care whether a man can read or not, he can see that that man is introducing something on his ground that is better than his own, and he will immediately begin experiments.

Mr. COCKS. Is it anything unusual to keep 25 head of stock on a 100-acre farm?

Mr. BOLGIANO. It is considered that about 4 acres to the head of stock, I believe, is the average.

Mr. COCKS. We would not think it was in our country.

Mr. BOLGIANO. Do you keep 100 head of stock on a 100-acre farm?

Mr. COCKS. We keep about 40 head on a 100-acre farm.

Mr. BOLGIANO. If you show a man how to keep over 100 per cent more stock on his farm, I think that would be doing something. Around here 25 is considered a fair average for a 100-acre farm. I will state that I am in the seed business, and I have been connected with farming. I am a farmer, and I rent a farm in Frederick County, Md., and I am interested in farming. I make experiments to the best of my ability and to the extent of my pocket, on this land which I rent, or work, and it is very interesting to me to know of the experiments that are going on in the Agricultural Department. The seedsmen of this country do not want to throttle the Department of Agriculture. They want them to advance; and as to the seedsmen taking up a new and valuable variety after it has been introduced, the seedsmen may take it up, and there is no question that they would take it up.

But after the Agricultural Department has introduced it, and has introduced it at a prohibitory price to the average farmer, then the seedsmen, because of the natural production of seeds, get it down to a price where every single farmer can take hold of it and grow it. If you would control it, you would control only \$135,000 worth of the new kind of seed and hold it all within the Agricultural Department. If you would debar the seedsmen from handling it, what good would it do to the great farming community? The seedsmen would take it and sell it at low prices. I think I have said all I care to.

The CHAIRMAN. Gentlemen, it is a quarter after 12 o'clock. It is for you to decide whether you want to go on any further at present. How much time do you want, Mr. Smith?

Mr. SMITH. Mr. Wadsworth, I think possibly I could say all I want to in twenty minutes or half an hour. I expect there will be a number of questions asked.

The CHAIRMAN. Doctor Galloway desires to be heard.

Mr. SMITH. I can appear at any time. The matter has been left to me to collect and compile the data that we have presented, coming from all parts of the United States, and when I present that I imagine you will, like the Senate committee, want to ask questions probably as to how this material was collected and what it means.

The CHAIRMAN. I suggest that the committee listen to Mr. Smith, and that it then have a special meeting at a later day to hear Doctor Galloway on this subject. Is there any objection to that?

The Chair hears no objection.

Mr. DAVIS. I can not stay that long, but that is immaterial.

The CHAIRMAN. Cover new ground as much as possible, Mr. Smith.

Mr. COCKS. It seems to me, in view of the fact that Doctor Galloway has been here two days we ought to hear him anyway the next time.

The CHAIRMAN. We will have a special meeting for the purpose of hearing Doctor Galloway.

**STATEMENT OF MR. WILLIAM WOLFF SMITH, OF WASHINGTON,
D. C.**

Mr. SMITH. Mr. Chairman and gentlemen, I do not pretend to be a seedsman. I am a newspaper man. I may say that I have been in and around the Capitol for approximately ten years. I served on the floor of the House for five years with the New York Sun Press Association. I have had the pleasure of knowing personally most of you gentlemen who were here at that time. As a newspaper correspondent, I think in common with practically all the correspondents, and in common with the entire press of the country, I always regarded the distribution of these seeds as a waste of money; not that they are all wasted; not that it is a pure waste of money, but that a large part of these seeds are wasted. I wrote articles on it at that time. Nearly every year I wrote something on that line.

About five years ago, or possibly less than that—Doctor Galloway can tell; we will say four years ago—they had a great deal of trouble in the Department of Agriculture over these free seeds. They had a great deal of trouble with the contractors. They were sending out worm-eaten seeds and worthless seeds—seeds, I believe, that it was at that time claimed had been cleaned. They were two or three years old, it was said, and had been polished by machinery to resemble fresh seed,

I went into the whole proposition very thoroughly at that time and wrote several articles on the subject, which attracted considerable attention, especially among the seed trade. I had no financial interest in it at all at that time, but treated it as a matter of news. Last spring, I think in March, or possibly before that, your honorable

committee acted on this subject and omitted the item for the Congressional free seed distribution.

I received a letter two or three days afterwards from Mr. Burnett Landreth, of Philadelphia, stating that a number of seedsmen would be down here, and, in view of the interest I had previously taken in this matter, he would like to have me come over to meet these gentlemen, which I did. I had never met any of them before, and I did not know any of them at all. I went to the Willard Hotel. This is the famous meeting, the great "lobby" of the "spike-tailed agriculturists" that you hear so much about, in which they are charged with having bought up all of the press in the United States. They asked me my opinion of the situation, and I said, "Gentlemen, I have been writing on this subject, as every other correspondent has for years and years," and they said, "Now, the House committee has acted on this. How do you think we can go about it to get our side of the case before the public and before Congress?" I said, "I am a newspaper man. To my mind there is no other way that is as good or as successful, if you have a good case, as to appeal to the press of the United States, and to the public through the press." They asked me if I would take up the matter and take it in charge and do what I could to present the matter to the press, the public, and to Congress. I told them I would be glad to accept the engagement, and that I thoroughly believed in their proposition. And at this point I may say that while I sometimes write articles on other things before Congress—and I may say that my labors are sometimes sought by Members of Congress who think they have meritorious measures to present to the press, and to the public through the press—I refuse to accept any engagement whatever, at any price, where I can not conscientiously support such measure, or oppose it, as my clients may desire. In other words, where my client's view of the case does not coincide with my own I decline the engagement, no matter how lucrative. I may further say, in this connection, that there are something like 300 daily papers in this country which depend on me and on my little bureau for all their special dispatches from Washington. I can not betray the confidences of those papers or those editors. I could not afford to if I so wished, for if I did I would soon have no business. That is the way I came to be engaged by these seedsmen.

This distribution had been opposed by the press for fifteen or twenty years, or certainly for twelve years, to my positive knowledge, before these gentlemen ever met.

NO PRESSURE ON THE PRESS.

I may say that they paid me the compliment of asking me to continue the campaign through the past summer. Since this thing has come up no seedsman has ever, to my knowledge, intimated to any paper whatever that he would increase his advertising if it supported us or decrease it if he did not. I can state that without qualification; and I can further state that when that matter was brought up to me I made the special point that there should be no pressure brought to bear on the papers in any way except by appealing to their sense of justice. That is the spirit in which we come

before this committee—not that we are going to get your scalps if you do not obey, not that the seed trade is poor, not that you are bankrupting these seedsmen, but that it is an injustice whether it be 15 cents or fifteen hundred thousand dollars.

Mr. Davis, I think, a few moments ago made the point that this is a small matter. It is a small matter to the trade in general. But if a man puts his hand in my pocket and takes out money it does not make any difference if he takes 15 cents or \$15,000—

Mr. COCKS. It makes a big difference to me.

Mr. SMITH. It does not make any difference what he takes, it is larceny, pure and simple. It does not make any difference about the amount. If this is wrong in principle, it is wrong no matter how much is involved.

These gentlemen employed me, and I have done all I could. I have written letters to the press of the country—to practically every daily paper in the United States, I think, as far as I could cover them. If you would like to have me do so, I will read a letter that I sent to them all. I have all this data, and I want it understood that you can not ask me any question that will embarrass me in this connection. I present myself for examination, if you want any further light on any of these details.

I wrote to the editors of these papers and asked them if they were not opposed to the present method of distributing free seeds—not of free seeds, per se—but the indiscriminate distribution of pumpkin, squash, watermelon, muskmelon, tomato, and cantaloupe seed, which have been on the market anywhere from ten to forty years. I have letters which I will, with your permission, present as a part of my remarks, from 500 newspapers, whose editors thought enough of this matter to sit down and write personal letters, saying: "We have been fighting this for years." "Go ahead." "We are all with you." "Bully for you." "Go on." "See if we can not get this farce done away with." They do not write to me because I have advertising. I never handled a line of advertising in my life. They do not know me as an advertising man at all.

Of course some of the editors of newspapers know me personally and some know me as a correspondent, but many of these letters come from editors whose names I never even heard of. I have no personal acquaintance or relations with many of them. In all this correspondence that I have had with newspapers I have never found but two editors who said they were in favor of free seeds. One of them said that his Member of Congress sends him 200 or 300 packages of these seeds every year, and he does not want to oppose it because if he did he would lose the seed. Undoubtedly he has a little farm, or perhaps a large farm, and he seeds the farm at the Government's expense, or, perhaps, he gives them to his subscribers. Of course he does not want it done away with.

There is a newspaper correspondent in town here who said to me, "I sympathize with you. I think your fight is all right, but I can not oppose this. A friend of mine is a clerk of a committee, and he gives me a bushel of seeds every year, and I send them to my father up in New York, and he don't have to buy seeds."

I have two letters from agricultural papers, and they say: "My dear sir, we think you are all right, but this is a seedsmen's fight. Why should we take up the seedsmen's fight when they do not adver-

tise with us as extensively as they should? You get us advertising and we will support your proposition." I wrote back and said: "Gentlemen, we are not doing business that way." I have not anything to do with seed advertising. I do not know who does have.

The seedsmen do not generally advertise with the press, certainly not with the daily press. Their methods of advertising are different. The Peter Henderson Company, W. Atlee Burpee, and all the large seed dealers advertise mainly in catalogues. They send out handsomely illustrated catalogues several times a year showing what they expect these seeds they are selling will produce, and I venture to say that in the case of these gentlemen whose names I have mentioned the seeds do the work. That is the way they advertise their seeds. I wrote to the two editors, and I said: "We are not conducting our campaign that way. If you want to come into this from the standpoint of right and justice, we will be very glad to have you come along. If you do not, stay out." One of them came in and the other stayed out. There are others here [exhibiting letters and editorial clippings], and I will be very glad to leave these with the committee, if anybody wants to see them—about 500 to 1,000 editorials from as many different newspapers, agricultural papers, daily papers, church papers, some cartoons, and all that.

At this point, Mr. Chairman, I beg leave to insert some extracts from a few of the letters received from editors of agricultural and daily newspapers. Having been written with this end in view, I think they should be presented to your committee. The originals will accompany the exhibits:

EXTRACTS FROM LETTERS OF AGRICULTURAL EDITORS.

The New Jersey Farmer, Westfield, N. J.: The Farmer is opposed to the free-seed distribution.

Southern Tobacco Journal, Winston-Salem, N. C.: You may put me down as being opposed to the free distribution of garden seed. It is a gross humbug, to say the least.

The Southern Farm Gazette, Starkville, Miss.: We regard the free distribution of seeds as one of the worst fakes that was ever perpetrated on the American people.

The Rural Californian, Los Angeles, Cal.: This thing is an old chestnut. According to our way of thinking it is wholly useless.

The Southern Ruralist, Atlanta, Ga.: We appreciate the work you are doing to have the free-seed distribution done away with and will be glad to cooperate with you.

The Prairie Farmer, Chicago, Ill.: We have referred to this matter in various issues in the Prairie Farmer, always urging that the same be discontinued.

Ranch and Range, Denver, Colo.: From principle we are making a protest against this wholesale slaughter of the people's money.

Daily National Live Stock Reporter, Chicago, Ill.: We are heartily in favor of the attitude you assume with reference to this subject.

Town and Country Journal, San Jose, Cal.: We quite agree with all you say.

The Twentieth Century Farmer, Omaha, Nebr.: We hope that this appropriation will be abolished, as we believe this money can be put to much better use.

Rural Californian, Los Angeles, Cal.: We will help you in fighting the free distribution.

Poultry Husbandry, Waterville, N. Y.: We quite agree with you in the matter of free seed distribution.

The Tri-State Farm Journal, Crisfield, Mo.: We will give our subscribers a straight talk on the matter.

Western Breeders' Journal, Clay Center, Kans.: This practice has our unhesitating condemnation. The original idea was all right, and if carried out would have meant great things for the American farmer, but the plan as it is

now perverted is the rankest kind of foolishness and useless expenditure of the people's money and borders close to actual graft.

Texas Stockman and Farmer, San Antonio, Tex.: We have already gotten after the Government seed fake, editorially and otherwise, and will keep the "lick" up.

The Southern Home, Louisville, Ky.: The Southern Home has been opposed to the indiscriminate free distribution of seeds.

The Southern Reporter, Charleston, S. C.: The Southern Reporter may be put on record for the purchase and distribution of rare and valuable seeds, rather than common garden seeds.

Farm and Ranch, Dallas, Tex.: The Farm and Ranch has been fighting this old fraud for many years.

The Ranch, Seattle, Wash.: We are in full accord with the ideas expressed in your letter.

Progressive Country Life, Washington, D. C.: We heartily indorse the action against free seeds.

Successful Farming, Des Moines, Iowa: We are with you in the fight against the Congressional free seed distribution.

Inland Poultry Journal, Indianapolis, Ind.: The Inland Poultry Journal is very much in favor of eliminating all this tommyrot.

Wallace's Farmer, Des Moines, Iowa: I am entirely in sympathy with you and your fight against this free seed distribution.

Missouri Agricultural College Farmer, Columbia, Mo.: We are with you in this fight against the free seed distribution.

The American Cultivator, Boston, Mass.: We have always taken the standpoint that the free seed business is a kind of graft, and ought to be opposed on that principle, if for no other.

The Garden Magazine, New York, N. Y.: We are unqualifiedly opposed to the general distribution of seeds.

The Connecticut Farmer, New Haven, Conn.: The consensus of opinion among those of our subscribers we have been able to reach is in favor distinctly of the abolishment of this practice.

Farm and Fireside, Springfield, Ohio: Farm and Fireside has steadfastly and consistently opposed free seed distribution.

American Farmer, Indianapolis, Ind.: We have been fighting this proposition for years.

The Farm Home, Springfield, Ill.: We will be pleased to cooperate in the antifree seed campaign.

The California Fruit Grower, San Francisco, Cal.: We have for a number of years back been howling and editorializing in opposition to this matter.

The Northwestern Agriculturist, Minneapolis, Minn.: We have long been on record ourselves in opposition to this petty, contemptible graft.

Farm and Home, North Yakima, Wash.: For many years we have been exposing the frauds of the free seed deal.

Farm, Field and Fireside, Chicago, Ill.: We have frequently taken up the abuse of the free seed distribution, and have followed the subject closely.

The Fruit Grower, St. Joseph, Mo.: The Fruit Grower has published a number of articles denouncing the whole business.

The Farm Magazine, Omaha, Nebr.: The Farm Magazine has been running editorial comment every issue relative to the evils of the free seed practice.

Farm Life, Chicago, Ill.: We have always opposed the free distribution of seed.

The Farmers' Tribune, Sioux City, Iowa: The Farmers' Tribune has for years been opposed to free seed graft.

The Farmer and Stockman, Ashburn, Ga.: I am on principle opposed to the free distribution of seed by the Government.

Fruitman and Gardener, Mount Vernon, Iowa: The horticultural and gardening interests are a unit in opposing the worse than useless waste of money on inferior seeds.

The Farmers' Advocate, Topeka, Kans.: I consider the free distribution of seeds by Congress, as is generally given out, a petty political graft which is an imposition on people.

The Field and Farm, Denver, Colo.: We have been hammering on this question a good many years and it is our intention to keep hammering. We trust the fight against this pernicious practice will prove effective.

Farmers' Review, Chicago, Ill.: We hope that concerted efforts in this direction by all interested will result in doing away with the evil.

The Farmers' Guide, Huntington, Ind.: The Farmers' Guide has been opposing this for several years.

House and Garden, Philadelphia, Pa.: We are entirely in sympathy with the movement against this free distribution.

The Modern Farmer, St. Joseph, Mo.: The Modern Farmer has been talking against free seed for the last ten years. We think the Government has no business distributing free seed or free anything else.

Farm, Stock, and Home, Minneapolis, Minn.: Our paper has ever since its founding, nearly twenty-two years ago, been consistently and continually opposed to the Government seed distribution.

Kansas Farmer, Topeka, Kans.: The free seed graft amounts in the aggregate to an enormous raid on the Treasury. It is a perversion of the useful original purpose of aiding in the introduction and distribution of new varieties of cultivated plants. How any honorable man can support its continuance is hard to understand.

Kimballs' Dairy Farmer, Waterloo, Iowa: With reference to the free seed proposition, we are mighty glad to write as strong an article as we are able on this question.

The Strawberry, Three Rivers, Mich.: We trust that the vigor with which this work is being prosecuted may result in permanently eliminating this unjustifiable expenditure.

Oklahoma Farmer, Guthrie, Okla.: We consider this an outrage on both seed producers and sellers, and a scheme which does the farmers but little good.

National Stockman and Farmer, Pittsburg, Pa.: We are very much opposed to the perpetuation of the free-seed evil.

North Pacific Rural Spirit, Portland, Oreg.: An unjust practice of the Government.

The North Dakota Farmer, Lisbon, N. Dak.: We have always contended that the money expended was largely thrown away.

The New York Farmer: For years the New York Farmer has opposed the appropriation for this purpose.

The National Nurseryman, Ithaca, N. Y.: I am very much in sympathy with your antiseed crusade. I think, with you, that it simply needs a little more hammering on this subject through the representatives of the people to make them realize that the farmers and persons interested are, if not actively opposed to the principles of this distribution, completely unaided by the seed sent out.

The Modern Farmer and Busy Bee, St. Joseph, Mo.: The Modern Farmer has always been opposed to the distribution of seed by the Government.

The Woman's Farm Journal (The Woman's Magazine), St. Louis, Mo.: We assure you of our sympathy in the work which you have on hand, and our willingness to do anything possible to help you.

Southern Planter, Richmond, Va.: An abuse of public authority and a waste of the taxpayer's money. Never during the nearly twenty years which I have edited this journal have I received any remonstrance from any reader against the position I have taken on this seed-distribution question, but I have frequently been commended for attacking it.

Editor The Southern Tobaccoist and Modern Farmer, Richmond, Va.: You are at liberty to use my name as an opponent of the free seed distribution.

The Dairy Record, St. Paul, Minn.: You may count on us for whatever little we can do in this matter, as we are in hearty sympathy with those who want it abolished.

New York Produce Review, New York City: We have opposed this matter for years editorially and are pleased to add another shot.

The Elgin Dairy Report, Elgin, Ill.: We have your favor regarding the seed business and have already communicated with our Congressmen in regard to the same.

Southern Ruralist Company, Atlanta, Ga.: We have already taken this matter up with our Representatives in Congress, and shall have something to say about it editorially.

The Practical Farmer, Philadelphia: I have written to Senator Proctor protesting against the insulting and utterly unwarranted insinuations of the friends of the free-seed graft in the House and gave him some information as to the way the seeds are handled in the South.

Rural Spirit, Portland, Oreg.: We are mailing Senator Proctor a copy of our paper in which one of our editorials expresses our views pretty fully regarding

free-seed distribution. Trust that this will aid somewhat toward the desired end.

The Florists' Review, Chicago, Ill.: We shall be glad to have you advise us as to the date of the hearing on free seeds before the Senate Committee on Agriculture. We shall endeavor to be represented.

Southern Agriculturist and Home, Nashville, Tenn.: We have already written letters on the free-seed question to our Representatives in Washington, but at your suggestion we are writing Senator Proctor.

The Ohio Farmer, Cleveland, Ohio: We have written to Senator Redfield Proctor.

Among other papers whose editors have written letters expressing their views on this subject are the following:

The Southern Planter, Richmond, Va.
 The Florists' Review, Chicago, Ill.
 The Farm and Ranch, Dallas, Tex.
 The Farmers' Voice, Chicago, Ill.
 The Indiana Farmer, Indianapolis, Ind.
 The Implement Age, Philadelphia.
 Illinois State Journal, Springfield, Ill.
 Farm Implements, Minneapolis, Minn.
 Agricultural Experiments, Minneapolis, Minn.
 The Kentucky Farmer and Breeder, Lexington, Ky.
 The Agricultural Epitomist, Spencer, Ind.
 The Columbus (Ga.) Ledger.
 The Nut Grower, Poulan, Ga.
 The Montgomery (Ala.) Advertiser.
 Minneapolis (Minn.) Journal.
 The Montgomery (Ala.) Times.
 The Evening Standard, New Bedford, Mass.
 The Boston (Mass.) Globe.
 The Jamestown (N. Y.) Post.
 The Hornellsville (N. Y.) Times.
 The Standard, Bridgeport, Conn.
 The Albany (N. Y.) Argus.
 Pittsburg (Pa.) Chronicle-Telegraph.
 The Detroit (Mich.) Times.
 The Farm Students' Review, University of Minnesota.

I also beg the indulgence of the committee to introduce some extracts from letters from the daily newspapers; not editorials, but letters, showing the editors are personally interested. They are as follows:

LETTERS FROM DAILY NEWSPAPERS.

The Gazette-Chronicle, Augusta, Ga.: We will take pleasure in giving editorial attention to this matter and in doing what we can with our own Representatives in Congress.

Denison (Tex.) Herald: The Herald has already taken up this matter in opposition to the free distribution of seed by the Government and has had considerable to say about it one way and another.

Wheeling (W. Va.) Intelligencer: We have written the Members of Congress from this district urging the same view that you take.

Waco (Tex.) Times-Herald: We have always been opposed to it, and for several years we have been condemning it in our editorial department.

The South, Holly Springs, Miss.: Emphatically opposed to the custom by the Government.

Daily Messenger, Washington, N. C.: Favor using seed appropriation only for purchase and distribution of rare and valuable seeds.

The News and Herald, Winnsboro, N. C.: This money should be spent only for new seeds to send out for the purpose of experimenting.

The Asheville (N. C.) Citizen: Opposed to the promiscuous distribution of common seeds.

Appalachian, Bryson, N. C.: Condemn distribution of common seeds.

Cherokee News, Gaffney, S. C.: Opposed to seed graft. Favor discriminate distribution experiment stations.

Clinton (S. C.) Chronicle: We regard the free distribution of cheap seeds as nothing better than a species of graft.

The Lantern, Chester, N. C.: The appropriation for distribution of common seeds is pure waste.

The Covington (Tenn.) Leader: We have never seen any practical results from the Government's indiscriminate distribution of seed. Is a useless waste of public money.

Commercial, Collins, Miss.: We are strictly in favor of abolishing this expensive and foolish custom.

The Calhoun Monitor, Pittsboro, Miss.: Am unalterably opposed to the free distribution of seeds in the manner in which it is now conducted.

The Enterprise, Mullins, S. C.: A useless expense to the Government.

The Dixie Home, Birmingham, Ala.: The Government should not make this appropriation.

The Durham (N. C.) Recorder: The Government has no more business coming in contact with the seed business than any other.

Darlington (S. C.) News: Am opposed to distributing seeds at random over country, but favor money being given to Secretary of Agriculture to secure new and valuable seeds for experiment stations.

Fort Worth (Tex.) Record: The Record has repeatedly declared itself opposed to this iniquity.

Fairfax (S. C.) Enterprise: Am in favor of the Government appropriation being used in the purchase and distribution of valuable seeds only.

Everything, Greensboro, N. C.: The free-seed graft is purely a high-handed outrage. The entire appropriation should be changed to different hands.

News and Sun, Griffin, Ga.: Do not favor indiscriminate distribution of cheap seeds, but do think it very proper that new or rare seeds should be thus sent out for fair tests in different parts of the country.

The Ledger and Grit and Steel, Gaffney, S. C.: Am opposed to the distribution of seeds as has been carried on in recent years.

The Hartford (Ky.) Herald: Am not in favor of the free distribution of common garden seeds.

The Houston (Tex.) Chronicle: We have always condemned the free-seed graft.

Hickory Flat (Miss.) Banner: Am in favor of stopping distribution of garden seeds.

The News, Jackson, Miss.: The News is much opposed to free seed distribution as an unnecessary expense and a paternalistic practice which should be stopped.

The Batesburg (S. C.) Advocate: The free distribution of seeds should not be tolerated.

Lexington (Ky.) Leader: The free garden seed distribution seems to us to be contrary to our governmental traditions and a subversion of the original purpose for which the seed appropriation was intended. It looks to us like a waste of money.

The Greene County Herald, Leakesville, Miss.: A nuisance and an intolerable waste of money.

Kings Mountain (N. C.) Herald: I oppose the free distribution of worthless seeds.

Virginia Pilot, Norfolk, Va.: We have had several editorials opposing the continuation of the seed distribution.

Our Mountain Home, Asheville, N. C.: Have no sympathy with the free-seed business.

New Albany (Miss.) Gazette: The distribution of common garden seed is money wasted.

The Siler City (N. C.) Grit: The money should be given to Secretary Wilson to secure new and valuable seeds to distribute through the experiment stations.

The Landmark, Statesville, N. C.: The distribution is the veriest humbug.

Sanford (N. C.) Express: The seeds are worthless and the farmers know it. Cut out the common garden seeds, as the Senate proposes, and let the Secretary of Agriculture use the funds for making experiments and developing new seeds.

The Record, Rock Hill, S. C.: Am opposed to the distribution of common garden seeds. It is a waste of money, which should go toward strengthening the efforts of the Secretary of Agriculture in propagating new and valuable seeds.

The People, Camden, S. C.: I am opposed to the proposition mentioned as now before the Senate committee referring to the free distribution of seed.

The Prentiss Plaindealer, Booneville, Miss.: So far as I am individually concerned I have for years known that the practice of sending out seeds was a farce and of no practical benefit, except as a means of reminding us that we had a Congressman, which, if it were not for the annual seed distribution, we probably would overlook.

The Sterling (Kans.) Bulletin: The newspapers of Kansas regard the distribution of garden seeds by Congressmen as a joke. The appropriation devoted to improving plants would really bring some benefit to the agriculturists of the country.

The Spencer (Iowa) Herald: Government seed distribution is a wrong idea, and should be stopped. There is nothing that can be said in favor of it as now conducted.

Sioux City (Iowa) Courier: We have always been opposed to the free distribution of the seeds in question. The present system is an outrage and nothing but a nuisance.

The Every Other Daily Union, Belle Plaine, Iowa: I can not too emphatically state that I think the practice is an abuse which is run into the ground. The distribution of rare and valuable seeds is an entirely different matter, and, as I understand the law, it was the distribution of such seeds only that was originally contemplated.

The Winfield (Kans.) Weekly Tribune: I regard the free seed distribution the most ridiculous of the many absurd propositions this Government is tied to. It ought to be abolished.

The Winterset (Iowa) Madisonian: I think the cost of the distribution is more than the value of the service rendered, and that the money could be more wisely expended in other channels.

Rockwell City (Iowa) Advocate: The free distribution of garden seeds is a useless expense.

The Atlantic (Iowa) Messenger: The plan to send rare and valuable seeds to experiment stations is a good one, but the old free-seed graft should be retired.

Clinton (Iowa) Daily Advertiser: The work of the Department should be confined to introducing new varieties of vegetables and other products.

The Semi-Weekly Gazette, Cedar Falls, Iowa: I believe it a useless waste of money to distribute the kinds of seeds now being distributed. It accomplishes no good purpose and is becoming a huge joke throughout the country. The seeds are very ordinary as to class and inferior as to quality.

The Mail and Times, Des Moines, Iowa: Favor the use of the seed money for the purchase and distribution of rare and valuable seeds only. I hope this sensible change may be brought about.

The Denison (Iowa) Bulletin: The present distribution of garden seeds by the Government is considered a farce by nine out of every ten people who think about it at all. And nearly the same proportion of people believe that the purchase of tons of indescribably poor and mixed-up seeds every year is a waste and a graft which ought to be exposed.

The Advocate, Eldorado, Kans.: I never could see the sense in the distribution of common garden seeds as conducted in the past.

Encampment (Wyo.) Herald: Consider seed distribution foolish waste of money as now conducted.

The Duluth (Minn.) Evening Herald: This has been a hobby with the Evening Herald for some time past, and a great many articles and editorials have appeared in its columns denouncing this graft. This abuse has been carried on so long a time that people have lost sight of this extravagant nuisance. I sincerely trust the present Congress will abolish the custom.

Iowa-Posten, Des Moines, Iowa: I have always looked at this free seed distribution by the Government as a puerile undertaking which can exist only because the farmers in Congress are in a hopeless minority. A practical, intelligent farmer could never sanction such waste of money to no purpose.

Daily Capital, Jamestown, N. Dak.: We are opposed to the old method of distributing seeds by the Government, but heartily support the distribution of rare and valuable seeds only, when carried on along the lines of work conducted by State experiment stations. The work of the single experiment station in North Dakota has saved the farmers millions of dollars.

The Daily Eagle-Star, Marinette, Wis.: We have published considerable matter in opposition to this free seed distribution.

Journal, Lansing, Iowa: Free distribution of garden seeds should be discontinued by the Government.

The Republican, Lincoln, Kans.: I believe the free distribution of common garden seeds to be the most foolish, useless, and defenseless method of dissipating the public funds that exists in the American Congress at the present time. I am heartily in favor of the purchase and distribution of rare and valuable seeds. This has resulted in great good to western Kansas by the introduction of several new forage crops during the past fifteen years, and, I think, is a valuable investment of public funds.

The Journal, North Freedom, Wis.: I didn't think Congress could be inveigled into any such political fraud as the seed question, with the evils of the distribution of seed.

Newton (Iowa) Journal: I consider the distribution of seeds, etc., as it has been done in the past, to be the most infernal piece of nonsense on record.

The Daily Eagle-Star, Marinette, Wis.: The distribution of any rare or valuable seeds, which may be imported or originated through the Agricultural Department, is something which we believe ought not to be disturbed, but the general free distribution, through Members of Congress, of peas, beans, corn, squash, and similar seeds we believe a great evil.

The Minneapolis (Minn.) Daily News: I am certainly opposed to free seed distribution, and must say most emphatically my opposition is not due to any advertising influence. Distribution of rare or valuable seeds should be continued. The sending of bushels of common grain seeds through the mail should be stopped.

The McGregor (Iowa) News: We are in favor of the distribution of rare and valuable seeds only, instead of the present methods.

The Pratt (Kans.) Union: I am heartily opposed to the foolish free distribution of common garden seeds. I use my columns constantly in opposition to all such waste of funds. Choice seeds would do good.

The Republican Register, Washington, Kans.: The garden-seed graft has had its day. The free distribution of seeds, as it has been practiced in the past, doesn't benefit anybody on earth. The farmer doesn't want the seeds, and he frequently finds that if he does sow them they are no good.

The Democrat, Akron, Ohio: We are in thorough sympathy with your statement in this regard, and trust you will be successful in abating the nuisance.

The Bay City (Mich.) Tribune: We have already had several editorials condemning the free seed distribution.

The Crawfordsville (Ind.) Journal: We are glad to state that we are in perfect accord with your views on the subject of free-seed graft, and that we have been hammering away against it for some time.

The Dayton (Ohio) Journal: The distribution of new, rare, and valuable seeds is something that the Government ought to do more in than it is doing, but when it comes to the distribution of the seeds of common products the proposition is absurd. The expenditures for seeds have been made without due consideration for results.

The Detroit (Mich.) Journal: The Journal has been pounding on the free-seed graft for years back.

The Daily News, Dayton, Ohio: This is a practice which has been much abused, and has really resulted in no material benefit to the people.

The Joliet (Ill.) Daily News: Our people here are opposed to the free seed distribution on general principles.

The Morning News, Muskegon, Mich.: The promiscuous distribution of seeds is a useless expense, and brings no adequate returns to the Government or the people.

The Philadelphia (Pa.) Inquirer: We beg to inclose you editorial in reference to "No more free seeds."

The Pittsburgh (Pa.) Gazette: Several years ago the Gazette took this matter up but did not seem to make any great progress toward a settlement. However I trust you will be more successful.

Pittsburg (Pa.) Chronicle Telegraph: Our editorial writer, Mr. Simpson, will have something to say regarding the "free seed distribution legislation," as he entirely agrees with your favor in regard to the matter.

The Utica (N. Y.) Press: We have had several editorials on this subject. We shall be glad to keep the matter up, and think it is in the best interest of all to have that appropriation done away with.

The Patriot, Concord, N. H.: Neither as an editor nor as a citizen do I believe in the governmental free distribution of common garden seeds or of

any other kind of seeds. The whole thing should be summarily dispensed with and disposed of.

Hampshire Gazette, Northampton, Mass.: We believe it inexpedient for the Government to distribute seeds as it has done for years.

Beverly (Mass.) Evening Times: We are in full sympathy.

The Lancaster (N. H.) Gazette: Among practical gardeners there has never been any attempt to use the seeds that have been so promiscuously sent out. By all means cut out the squash and pumpkins, and if the appropriation is to be continued let us have the rare and valuable seeds distributed to the different experiment stations.

The Newburyport (Mass.) Daily News: We have used about all of your matter on the seed question, considering it timely and exactly meeting our views upon the question.

Plymouth (N. H.) Record: The free seed distribution as carried out now is not doing the good intended, and the seeds as sent out now are principally good for chicken feed.

The Syracuse (N. Y.) Post-Standard: We deem the annual appropriation ridiculous, and have pleasure in cooperating for the defeat and permanent discontinuance of this old-time abuse.

Providence (R. I.) Journal and Evening Bulletin: The Providence Journal and the Evening Bulletin have for years contended against the wasteful use of money for free seed distribution. We have printed countless editorials on the matter and shall continue to do so until the practice is abandoned.

Terre Haute (Ind.) Morning Star: I have taken the matter up with our Congressman. He has promised not only to look into the matter thoroughly, but to use his personal influence.

Wheeling (W. Va.) Daily News: We have written the Members of Congress from this district urging the same view that you do.

Indianapolis (Ind.) News: Your letter reflects our views, which we have repeatedly expressed in the News.

The Republican News and Hamilton Telegraph, Hamilton, Ohio: We are going to give our immediate attention to this matter and are writing our Senator and Representative; also making editorial comment.

The Republican-Herald, Winona, Minn.: We are at your service.

The St. Paul (Minn.) Pioneer Press: We have already published several editorials on this subject and our Congressmen know thoroughly how we stand in the matter.

EXPRESSIONS GENERAL PRESS.

The Christian Union, Des Moines, Iowa: By all means let us have the new and valuable seeds, rather than pumpkin and parsnips.

Scottish Chief, Moxton, N. C.: I think some plan ought to be arrived at of distributing a better class of seed. The distribution of poor seeds brings the Agricultural Department into disrepute.

Confederate Veteran, Nashville, Tenn.: I agree with you that there should be a radical change in the practice of sending out seeds by the Government, and only the rare and valuable kinds sent out.

White Ribbon Bulletin, Fargo, N. Dak.: I regard the free distribution of garden seeds as an unnecessary expenditure of public money.

A. O. U. W. (Ancient Order United Workmen) Messenger, Nashville, Tenn.: The wholesale giving away of cheap and worthless seeds is a very unnecessary expense and should be stopped.

Textile Excelsior, Charlotte, N. C.: I am opposed to the practice first, last, and all the time.

National Printing Company, proprietors Bohemian-American Newspaper Union, Omaha, Nebr.: It has been our policy from way back to denounce the fake seed distribution. Many times we have pointed out the uselessness of the same and the constant waste.

Spirit of the West, Des Moines, Iowa: Spirit of the West is entirely willing to cut out the free distribution of pumpkin and squash seed and turn the appropriation over to Secretary Wilson to do the rest.

The Southern Lumberman, Nashville, Tenn.: From what we do know of it, are opposed to the custom.

Southern Christian Advocate, Spartanburg, S. C.: I am absolutely opposed to the free distribution by the Government of seeds, in most cases absolutely worthless.

The Keystone, Charleston, S. C.: We heartily disapprove of this promiscuous distribution of common seed and approve of the idea of using the appropriation for the distribution of rare and valuable seeds through State experiment stations.

The Labor Record, Kansas City, Kans.: My opinion is, cut out free distribution and use the money for the general betterment of crop conditions.

Maxwell's Talisman, Chicago, Ill.: We are opposed to this annual waste and interference with the business of the seedsmen on the part of the Government.

The Merchant and Manufacturer, Nashville, Tenn.: We are in hearty accord with the position that the distribution of common seeds should be stopped and the appropriation applied to the purchase of new and valuable seeds, etc., and their distribution.

NO LARGE FUND RAISED.

Mr. SMITH. I do not know how much money the seedsmen raised. I could not say. They may have raised \$100,000. But I might say this: In talking over this matter with Secretary Wilson he said to me, "Mr. Smith, I understand the seedsmen have raised \$10,000 on this proposition." I said: "Mr. Secretary, I do not know anything about it, but this is the cheapest campaign ever conducted in the city of Washington so far as I am personally informed." I said: "I did not get anything like \$10,000." He said: "When the seedsmen come on I will tell them they are not paying you near enough." [Laughter.]

Mr. SCOTT. As a newspaper man you are familiar with the facts, and I would like to ask you whether it is true or not that it is customary for interests of various kinds to maintain headquarters and to maintain an organization here in the city of Washington for the purpose of influencing legislation? For example, does the organized labor of the country maintain headquarters here?

Mr. SMITH. It does.

Mr. SCOTT. For the purpose of influencing legislation in which organized labor is interested?

Mr. SMITH. It does.

Mr. SCOTT. It is not considered illegitimate for anything of that kind to be done, is it?

Mr. SMITH. It is not. If you will permit me, Mr. Scott, to make an observation on that, I think if it was not for the fact that this matter has been up on the floor of the House and will be undoubtedly again, it would be a waste of your time and mine to discuss that point, it is so trivial. You know as well as I do that you gentlemen have people here, even before this committee, representing special interests all the time. As I say, I have been here ten years, and I have seen almost every industry in the United States represented here before committees at one time and another, especially during the tariff sessions. They come here from all over the country.

In the past ten years there has not been a single interest of importance which has not been represented before the committees, either favoring or opposing legislation of some character. That applies to the railroads, the shipbuilders, labor organizations, tobacco, sugar, butter, salt, cement, hides and leather, and a thousand others. But when the seed merchants come along and lift a feeble voice against the interference of the Government in their business—the only one case of its kind in this country, and this country the only one in the world where such is the case—they are denounced as "kid-gloved,

spike-tailed agriculturists" who "farm the farmer," and one impetuous Member even went so far as to term them "thieves."

As far as the seedsmen maintaining Washington headquarters, that you hear so much about, is concerned, this matter is really a very small part of my business. I do not mean financially; but I have a great deal of other business besides the free seeds on my hands. They allowed me a certain sum a week—I do not want to mention the exact amount, because I think it would be a little out of the way—and a certain sum, about the same amount, for printing and postage.

I sent letters to such agricultural associations as I could reach, obtaining the names from the Department of Agriculture and other sources, as best I could. I explained that we were working to have the appropriation changed so that really rare and valuable seed would be sent out. As a result of merely communicating with those interested, under a 1-cent stamp and in circular form, I have resolutions here from granges all over the country and from horticultural and other societies. I have my pockets full of them [exhibiting] and they are coming in in every mail, because these granges are now meeting. There are four State granges in session to-day.

Mr. SCOTT. In that connection, have you a recapitulation that you could give to the stenographer in connection with your remarks, giving the number of papers of different classifications as to daily papers, agricultural journals, and so forth?

Mr. SMITH. Yes, sir.

Mr. SCOTT. Who have indorsed your position on this subject; and also giving a summary of the resolutions that have been passed by granges, stating how many granges or other farm organizations have passed similar resolutions?

Mr. SMITH. Yes, sir.

Mr. SCOTT. You will submit those as a part of your remarks?

Mr. SMITH. Yes, sir.

The CHAIRMAN. Give the stenographer the list. We can not put all that stuff [indicating] in the record, but we would like to have the names of the agricultural papers, the names of the agricultural associations, granges, patrons of husbandry, and all that sort of thing, so that it will appear in concise form.

Mr. SMITH. I would like to read one or two resolutions.

The CHAIRMAN. Have the granges acted on this matter?

Mr. SMITH. This matter was originally brought up by the National Grange itself. I do not think that the National Grange ever had a communication, certainly not so far as I know, from the seedsmen. When it met in Portland, in 1904, it unanimously adopted such resolutions. It met just last month in Denver, and it again reaffirmed its position and unanimously adopted resolutions asking Congress, through your committee, to use this money for what they considered the real benefit of agriculture.

As a further evidence of how the National Grange regards this matter, I will read an extract from a letter of ex-Governor Bachelder, master of the National Grange, in which he says:

Replying to your favor of March 27, in regard to the elimination of the free-seed distribution by the Government, will say that this movement has the support of the National Grange. The legislative committee of the National Grange will meet in Washington and will aid in sustaining the report of the committee if in any way possible.

Mr. CANDLER. Did the Farmers' Cooperative Union adopt any resolutions?

Mr. SMITH. I understand, sir, from a member of the Farmers' Cooperative Union, which recently met at Topeka, Kans., that they have adopted resolutions, but I have not succeeded in getting them as yet. A member of the executive committee wrote me to that effect. He says—

there is no use adopting any more of these resolutions; they have already acted on that.

I think you will see that we are sincere about this.

Mr. LAMB. Nobody has questioned it.

Mr. SMITH. The farmers, the agriculturists, the seedsmen, the Department of Agriculture, and the press of the United States, daily and agricultural, are all a unit on this proposition. There may be a stray one here and there, but they are practically a unit.

Mr. LAMB. You say the farmers are a unit?

Mr. SMITH. I say the four forces. I do not say the farmers as a class are a unit; not at all; but the four forces are a unit.

Mr. CANDLER. I have had thousands of communications from farmers, and I have talked to thousands of them, and I have never yet found a farmer who was against it.

Mr. SMITH. Mr. Candler, if you will make an appropriation this year for plows I venture to say that you will get a request from everybody for a free plow.

Mr. CANDLER. I understand that; but I am speaking with reference to the point you make, that the farmers are all opposed to it.

Mr. SMITH. No; we admit that there are lots who are not; but our proposition is that if you go to the farmers and say you will give them some of these varieties of seeds in this exhibit [indicating], or you will give them some new, rare, and valuable seeds, perhaps of foreign growth, perhaps of domestic origin, such as the Department of Agriculture now introduces to a certain extent, do you not think they would rather have those rare seeds than these seeds [again indicating]? Does it not stand to reason that if you go to a man and say, "I will give you a grand piano or I will give you a melodeon," that he would take the grand piano?

Mr. CANDLER. Certainly.

NOT AGAINST RARE OR VALUABLE SEEDS.

Mr. SMITH. That is our contention. We are not trying to prevent you gentlemen from sending out seeds. We are not asking you to abandon the practice of sending out free seeds. I want to make that clear. Mr. Candler has taken great and intelligent interest in the subject, as has Mr. Lamb, and I want to make our position clear. We are not here endeavoring to take this away from you. Our proposition is to send out the seeds, if you wish. We do not think that Congressmen ought to send them out. I do not think that I ought to depend for my share of the quota of free seeds upon the favor of the Congressman from my district. He sent me a bundle last year, and they laid around for awhile and were finally fed to the chickens.

Mr. CANDLER. I send them all alike.

The CHAIRMAN. You have no Republicans down your way?

Mr. CANDLER. Yes, I have. I send them to them, too.

Mr. SMITH. If you give them to the people who request them, and give them to the people who will plant the new and improved varieties, like long-staple cotton and so on, and report on it, and are benefited thereby, give it to them. We think if a man wants some new variety of cauliflower, he ought to write to the Department of Agriculture and not to a Member of Congress.

Mr. CANDLER. We are here to serve the people. We are patriotic, and we want to serve them.

Mr. SMITH. I say you ought to be relieved of that duty, but if you want to send them out, do so.

Mr. CANDLER. Instead of wanting to be relieved, we are hunting for more ways in which we can do them favors.

Mr. SMITH. I thoroughly agree with you on that.

Mr. CANDLER. The only man I have found who has opposed it in my country, and who is the single solitary exception that I have seen, was a fellow who said he had some seeds for sale, and he said he would rather I would not send any to that place.

Mr. SMITH. Can you wonder at his objection?

The CHAIRMAN. That is where you exercise an unjust power. That is a trust.

Mr. CANDLER. I send them all alike.

The CHAIRMAN. And the Government furnished you with the club?

Mr. SMITH. Mr. Davis has said, in answer to a question: "I send out 30,000 to 35,000 packages of seed in my district, but I do not think it does you gentlemen any harm, because I only send one package to each man." If there are 35,000 men in his district who want seeds, and he gives a package to each man, it is to be presumed, and I think he will agree to that, that they will go to men who otherwise would buy seed, and he has taken away 30,000 to 35,000 customers from the seed dealers of the United States and especially from those living down there, and takes away from that trade every year to the extent of one package of seed to each man. Of course, if a man is going to plant an acre of turnips and Mr. Davis gives him a tenth of an ounce, he does not ruin that customer. If the packages were sent to the same people every year, it would not be so bad, but here is the way it often works out, and I speak from personal observation:

A district has a Republican Representative. He sends his seeds to the Republicans in his district, and this continues for some years, so that the retailers can estimate fairly how much seed they can sell each year in that district, because conditions are approximately the same from year to year. But the Republican is replaced by a Democrat. The new member distributes his quota to an entirely different set of people, and the retailers, who have laid in a supply for the Democrats, find they are now being supplied by Uncle Sam, while the Republicans, their noses out of joint, want entirely different seeds from what the retailer is prepared to supply.

I do not mean to say, Mr. Chairman, that this is always the case, for indeed I know of members who distribute their quota to their constituents regardless of political affiliations. But human nature is such that anyone having something to distribute, even if that something cost him nothing, will instinctively favor his friends, and in

this instance his political friends. Consequently it is not derogatory to the House of Representatives to assert what I believe to be the case, that at least nine-tenths of the packages of seeds distributed go to those of the same political faith as the Member distributing them. The same is equally true when a new man wrests the nomination from an old Representative. They have different friends.

It is a well-known practice for some Members of Congress to exchange their quotas of seeds for public documents. That is, a city Member, whose constituents have no place to plant the seeds and no fowls to which they can feed them, will bargain with another from a rural district, exchanging his seeds for certain documents for which No. 2's constituents have no use. In this manner I have known Members of the House to secure 50,000 and 60,000 packages of seeds from a single distribution. They dump these into their districts and demoralize the whole seed trade therein. Then they fall "outside the breastworks" and a new Member comes to Washington.

He does not know the ropes and at the first session only secures his own quota, and probably has to search the party poll books for people to send them to. Thus the seed trade of that district finds that where it expected 50,000 packages only 12,000 are distributed and it is not ready to supply the deficiency and there is an unusual demand, which encourages them to order stock for next year. But by that time the new Member has been "put wise" and he bargains around until he secures 50,000 or 60,000 packages, which he distributes, and the retail seedsmen find themselves with their extra stock on hand and no purchasers.

Mr. CANDLER. One package of seed will not plant a garden.

Mr. SMITH. One package of these seeds will plant a good deal more than I could plant in my garden. If my Congressman had given me my seed in time this year and they had been the kind of seed I wanted to plant I would not have had any seed to buy. I have a small lot, and one of those packages of onions [exhibiting] would raise more onions than I would care to cultivate.

Mr. COCKS. Did you ever try to raise onions?

Mr. SMITH. Some years ago, back in Indiana. I was raised on a farm. I was not born there, but I was raised on a farm, and when I got what little education I possess I lived on the farm and drove to college each day. I have worked in the field from sunrise to sunset, and I have done all kinds of farm work. I am glad of it, and I would like to have the chance to do it again.

The CHAIRMAN. I will give you a chance. The 1st of next April you come right along, and I will give you a job.

Mr. SMITH. The chairman has asked me about the resolutions of granges, and I want to, in all seriousness, present to you gentlemen a letter which I have here, and I do not wish to be dramatic about it, but it is as a voice from the grave. I am going to read to you, gentlemen, with your permission, probably the last letter that was ever written by the man who introduced these resolutions before the National Grange at Portland, Oreg., in 1904, and who introduced them at Denver in 1906 at the recent annual meeting of the National Grange; who was before the Senate committee, and who would have been here to-day if he had not died within the last three or four

days. That man went to Denver. He had been fighting free seeds for years. He lived out in Maryland, and was master of the Maryland State Grange. He had been fighting free seeds, as I said, for years, and as far as I know I do not think he ever got even a cigar from any seedsman or anybody connected with this business. He practically gave up his life in the cause. He came into my office before going to Denver, and he said, "I am a sick man, a very sick man. But," he said, "I am going out to Denver to appear before the National Grange on this proposition." He did go to Denver. He came home and he wrote me this letter. I had written to him asking for a copy of the resolutions:

MARYLAND STATE GRANGE.
OFFICE OF THE MASTER.
Hyattsville, Md., December 6, 1906.

MR. W. W. SMITH.

DEAR SIR: Yours of December 4 at hand. In reply will say that I am afraid I will not be able to comply with your request to appear before the House committee on the 12th, from the fact that I have been sick since my return from Denver, the 26th of November. Even though I were well, our State grange meets at Cumberland, Md., on the 11th and 12th of December, so it would be impossible for me to be there.

I will inclose the resolution I offered at the meeting of the National Grange. It was referred to the committee on agriculture. They reported favorable to its unanimous adoption, which was done. If it would be of any assistance, use it as you see fit.

By order of:

J. B. AGER.

MR. SMITH. Mr. Ager died the following day.

MR. BOLGIANO. Mr. Ager is the man who had the 100-acre farm with the 100 head of stock. That was Mr. J. B. Ager. I was at his funeral on last Sunday.

MR. SMITH. This is the resolution adopted at the National Grange at Denver. Ex-Governor Bachelder, of New Hampshire, was master of the National Grange. He came all the way to Washington last spring to appear before the Senate Committee on Agriculture on this matter and to present the views of the grange. They have between 800,000 and 1,000,000 members. As far as I know, and I have inquired into the subject very carefully, there has never been a grange nor an organization of farmers of any kind, if it has acted at all on this subject, that has not condemned this form of distribution.

MR. WOOD. Were those resolutions always unanimously adopted?

MR. SMITH. Yes.

MR. WOOD. Nobody got up and objected to them.

MR. SMITH. As the members will see, when they read them—because I am going to present them for that purpose—they were unanimously adopted.

The CHAIRMAN. Read those that you have there.

RESOLUTIONS NATIONAL GRANGE, PATRONS OF HUSBANDRY, REPRESENTING 800,000 FARMERS, ADOPTED AT DENVER, COLO., NOVEMBER, 1906.

Whereas Congress annually appropriates \$242,000 for the purchase of field, flower, and garden seeds, most of which are of a common variety;

And whereas the Department of Agriculture at Washington expends as much more in their distribution, making, in round numbers, a half million dollars;

And whereas the farmers of the country receive comparatively no benefit from it, we believe the money could be more wisely expended: Therefore, be it

Resolved. That we reaffirm and readopt the resolution unanimously adopted by the National Grange at its session held at Portland, Oreg., in November, 1904, which is as follows:

"We are unanimous in the conclusion that while the Agricultural Department at Washington should exert due diligence in its research for new food, forage, and other plants, and while there is something that can and perhaps should be done through the exchange of seeds, we can not conclude otherwise than that the general and free distribution of the many kinds and varieties of garden and field seeds by the Department is without benefit in any important sense and should be abandoned."

Mr. SMITH. You will see from the wording of this resolution that there is nothing manufactured about it. There are no printed forms of resolutions at all sent out by us. The farmers give what knowledge they have on the subject.

Two years ago, and more than a year and a half before the seedsmen ever took up this matter at all, part of these resolutions were passed.

At this point permit me to insert the resolutions unanimously adopted by the Farmers' National Congress, composed of 1,000 delegates from 30 States, which recently met at Quincy, Ill., as described by Professor Massey, a preceding witness:

Resolved. That we are opposed to the system of seed distribution as now conducted by the Federal Government, but believe in the work of exploring foreign countries for such seeds and plants as may be profitably introduced into this country, and recommend that the money expended for seed distribution as now conducted be added to the fund for maintaining American seed and plant explorers in other countries under direction of the United States Department of Agriculture, and the distribution of the same among the agricultural experiment stations of the country for practical test.

Mr. BROOKS. While you are speaking on the matter of resolutions and protests, have the State agricultural colleges, to your knowledge, taken any part one way or the other in this matter?

Mr. SMITH. I have these letters here from several hundred professors of agricultural experiment stations on this subject. They are all enthusiastic over the matter.

Mr. BROOKS. Just give us the resolutions.

DEPARTMENT AND SEEDSMEN IN ACCORD.

Mr. SMITH. With your permission I would like at some time, not to-day, perhaps, as it is late, to read some of those letters to the committee, and with your permission I would like to file the names, and perhaps a line or two from a number of these people on this subject.

In response to the request of Representative Brooks I beg to present a synopsis of a few of the letters received from professors of agricultural colleges and experiment stations, hurriedly compiled.

EXPRESSIONS OF AGRICULTURAL COLLEGES.

B. W. Kilgore, director North Carolina experiment station: I should like to see the distribution of seeds through Congressmen discontinued.

A. M. Ten Eyck, professor of agronomy, Kansas State Agricultural College: I am very much in favor of using the appropriation for distributing free seeds for the purposes which you name.

Alfred Atkinson, agronomist Montana agricultural experiment station: This practice has always appeared to me about the most ridiculous one that is tolerated in this Republic.

W. H. Stevenson, professor of soils, Iowa State College and Experiment Station: I am heartily in favor of the movement which is on foot to get Congress to abolish the present free seed distribution scheme.

E. Mead Wilcox, botanist, Alabama Agricultural Experiment Station: I have for years looked upon this free seed business as a piece of nonsense and graft, and I hope it may be ended at the next session of Congress.

T. J. Burrill, University of Illinois: I have long been of the opinion that the distribution of seeds is an unwise, unprofitable, and even shameful use of money.

S. Avery, department of chemistry, University of Nebraska: I am greatly opposed to the free distribution of seeds.

Geo. B. Ellis, secretary Missouri State board of agriculture: I am heartily in sympathy with the movement to discontinue the free distribution of seeds to farmers. Of my own personal knowledge I know that 99 per cent of the farmers who receive these seeds do not appreciate them and receive very little benefit from them.

E. Davenport, dean and director, agricultural experiment station, University of Illinois: It is a custom that ought never to have been started, and the sooner it is terminated and the funds devoted to a more useful purpose, the better for all concerned.

F. L. Washburn, State entomologist, Minnesota Agricultural Experiment Station: The antifeed-seed movement has my deepest sympathy. I am very much opposed to the present distribution of free seeds.

R. J. Redding, director Georgia Experiment Station: Perhaps it will be sufficient for me to express my very strong convictions to you, that the present method of distributing seeds is an outrageous waste of the public funds, and ought to be done away with at once.

James F. Brown, secretary Connecticut State board of agriculture: I beg to say that this board is in full sympathy with the movement to end the free-seed humbug.

Wm. P. Headden, Colorado State Agricultural College: I am heartily in favor of the antifeed-seed movement. The money expended in seed distribution has always appeared to me to be money wasted; it neither relieves a want nor confers a favor.

S. W. Flitcher, professor horticulture, Michigan State Agricultural College: I shall bring the matter of free seed distribution before the Michigan State Horticultural Society next month and urge the adoption of resolutions.

J. T. Willard, professor of chemistry, Kansas State Agricultural College: I am heartily in favor of the abolition of the distribution of common seeds of poor quality that has been going on for so many years.

D. A. Gaumnitz, assistant in animal industry, Minnesota Agricultural Experiment Station: I am entirely in sympathy with the movement against the free distribution of seeds. I think it is universally admitted, in this State at least, that the practice is anything but a desirable one.

L. B. Judson, assistant professor, department of horticulture, New York State College of Agriculture: I am very much opposed to the present system of distributing seeds.

J. C. Kendall, assistant professor, North Carolina College of Agriculture and Mechanic Arts: I am thoroughly in sympathy with this movement to put a stop to the worse than useless practice of sending out free seeds.

W. A. Henry, dean and professor of agriculture, University of Wisconsin, College of Agriculture: I will gladly do what I can to help in doing away with the present method of free seed distribution.

Edmund J. James, president University of Illinois: This has always seemed to me a great waste of money, so far as it involved the distribution of seeds and plants which can be obtained by anyone at regular commercial rates from commercial houses. * * * The giving away of common turnip seed is no more a Government function than the giving away of boots or clothes.

E. W. Nilgard, University of California, College of Agriculture: I have been trying to fight this absurdity, or graft, as it might be called, for the past twenty years. Professor Wickson, I understand, has taken measures to bring the subject before the horticultural and agricultural meetings this winter, and will do all he can to bring about the adoption of strong resolutions.

J. Willard Bolte, assistant professor, department of animal industry, Rhode Island College of Agriculture and Mechanic Arts: In my estimation, this is simply a petty means at heavy expense to enable people in power to remain there, and the money could undoubtedly be put to more profitable use.

R. W. Silvester, president Maryland Agricultural College: You may depend

upon me for all that I can do for the furtherance of the proposition which you make.

J. F. Duggar, director experiment station, Alabama Polytechnic Institute: I am in hearty sympathy with your efforts to make more profitable to American agriculture the money now used in the miscellaneous distribution of seed.

T. B. Symons, secretary Maryland State horticultural department: I am thoroughly in favor of your proposition and will place the matter before our State horticultural society at their meeting in Baltimore on December 5 and 6.

W. R. Dodson, director Louisiana State University experiment stations: I have your letter of November 5th in regard to the free distribution of seeds by Congressmen. I shall be glad to render you what assistance I can to bring about the desired modification in this respect.

G. S. Fraps, chemist to experiment station, Agricultural and Mechanical College of Texas: I am in favor of stopping the distribution of free seed and will write our Representative to that effect.

Samuel B. Green, professor department of agriculture and experiment station, University of Minnesota: While I am heartily with you in the matter of desiring that the appropriation now made for the distribution of ordinary garden seed be used for the distribution of really rare and valuable seeds and plants, yet I am not at all optimistic as to securing any such desirable change.

W. J. Elliott, dairyman, Montana Agricultural Experiment Station: I am already convinced that this seed distribution business is absolutely wrong.

Louis G. Michael, chemist, Iowa State College Agricultural, Experiment Station: It is the general opinion of every thinking man that the annual free seed distribution, conducted on its present lines, has become a dead letter. I am heartily in favor of the change as suggested in your letter of November 7. The \$500,000 should be placed at the disposal of the Secretary of Agriculture.

B. C. Buffum, director of experiment station, University of Wyoming: I am fully in accord with scientific cooperation of the Department and stations with the farmer, but have not yet been convinced that any good has been derived through Congressional seeds.

James B. Dudley, president North Carolina State Agricultural and Mechanical College for the Colored Race: I am in full sympathy with the effort to have the free distribution of seeds as is now being done discontinued and the money used to increase the efficiency of the agricultural schools. Wishing you much success and assuring you of my willingness to help in any way that promises to be effective.

J. M. Drew, registrar University of Minnesota: I am glad to be of any service in the good work of trying to do away with the free seed distribution.

A. J. Moore, secretary Mississippi Agricultural and Mechanical College: I have always viewed the matter as being a very unwise and ill-advised law, and will be glad to see same repealed whether any direct appropriation is made for the agricultural interests before the repeal of the law or not. I wish you the greatest success in your efforts.

H. J. Patterson, director Maryland Agricultural Experiment Station: I heartily agree with you that it is desirable to formulate some plan by which the present plan of free distribution of seeds shall be discontinued and the money put to better use. I shall be glad to further this project whenever opportunity offers.

Joseph L. Hills, director Vermont Agricultural Experiment Station: I am heartily in favor of the movement you represent. However, argument does not appear to have any great weight with Congressmen in this matter. If both ridicule and logic could have killed the thing it would have been killed long ago.

George T. Winston, president North Carolina College of Agriculture and Mechanic Arts: I sympathize with the efforts you are making to change the law concerning seed distribution.

T. K. Bruner, secretary North Carolina department of agriculture: As secretary of the State Horticultural Society I desire to approve for that society the movement, and to ask you to report it in your fight against this useless expenditure of money.

I am sure also that the board of agriculture, when it meets in December, will be glad to go on record also in this regard.

J. L. Phillips, Virginia State entomologist: I wish to state that I am thoroughly in sympathy with the movement as presented, and hope you will succeed in it.

J. G. Moore, assistant commissioner dairy and food commission, State of Wisconsin: I am heartily in favor of the movement to stop the waste of money which has been expended for these free seeds. As secretary of the Wisconsin Buttermakers' Association I will bring it before our association, which meets in February, 5-8, 1907, and will try and have a resolution passed.

Mr. U. S. Baer, secretary of the Wisconsin Cheesemakers' Association, is also heartily in favor of the plan and will see that a like resolution is passed through the cheese-makers' association.

We will also see what can be done to influence the Representatives and Senators from this district.

Franklin Dye, secretary New Jersey State board of agriculture: I have yours in relation to some action looking to a change in the management of the free-seed distribution. The reforms you speak of are, in my judgment, needed. The question has been before our State board of agriculture in the past, and I shall be pleased to lay it before them at their meeting next January.

O. C. Gregg, superintendent Minnesota Farmers' Institute: I am in hearty sympathy with what you are proposing to have enacted by our National Legislature.

W. N. Hutt, State horticulturist, North Carolina department of agriculture: I think the work of the Division of Seed and Plant Introduction would be of much more value to the country at large if its entire attention were devoted to the introduction and distribution of foreign seed which by experiment might prove useful to our American conditions. I do not see any use in the sending out of small packages of common seeds which can be readily purchased from local seedmen.

John Isaac, secretary commission of horticulture, State of California: The appropriation for free seeds is a humbug of the first water and a graft, and should be abolished. If the appropriation is turned over to the United States Department of Agriculture it will certainly be a good thing.

There has been a misapprehension, I will say, on this subject in the minds of some people that the Department of Agriculture and the seedsmen are working on divergent lines in this, and that they are not working on parallel lines. There is nothing more forcible we can say to support our argument than what the Secretary of Agriculture has said. He said it in personal and official communications; he said it over and over again, and he reaffirmed it to me less than a week or ten days ago, the last time I was down to see him about this, and the only time I ever said anything to him about it, I may say. So many inquiries have been made of the Department of Agriculture as to its attitude that Secretary Wilson had an extract from his annual report of 1903 reprinted, and to inquirers he incloses the same. I quote a letter from Professor Galloway, accompanying the extract:

The views of this Department with reference to the distribution of miscellaneous vegetable and flower seeds have been clearly set forth in our various reports. The attitude of the Department was stated by the Secretary in his report for 1903, extract from which I send inclosed.

The extract says:

With regard to securing and distributing miscellaneous garden and flower seeds, the fact remains that this work does not accomplish the ends for which the law was originally framed. There are collected, put up, and distributed now, on Congressional orders, nearly 40,000,000 packets of such seeds each year. These seeds are the best that can be obtained in the market, but from the fact that large numbers of packets are wanted the seed obtained can be of standard sorts only, such as are to be found everywhere for sale in the open market. As there is no practical object to be gained in distributing this kind of seed, it seems desirable that some change be made. To this end it would seem wise to limit our work entirely to securing and distributing seeds, plants, etc., of new and rare sorts * * *. This is a line of work that would result in much more value to individual districts throughout the country than the distribution of a large quantity of common varieties of garden seed, which have no particular merits so far as newness or promise are concerned.

The Department divides the work into three parts:

(1) The securing, handling, and distribution of miscellaneous garden and flower seeds, etc.

(2) Securing and distributing comparatively new or little known kinds of various field and forage crop seeds, and the improvement of same by breeding.

(3) Introduction and dissemination of new and promising seeds and plants from foreign countries.

We stand squarely by the proposition, with the Department of Agriculture, that No. 2 and No. 3 in their schedule is all right. Give them a couple of million dollars, if you want to, and send every farmer an orange tree.

But No. 1 is dead wrong. When you are giving the farmer something that he might not be able to get without a great deal of trouble, all right; but where you give him something that the postman brings to the door as a gift, which is something that he can walk half a block to the store and buy, you interfere with legitimate business.

Here are some of the resolutions from the granges [exhibiting]. But before I go into that I have here a telegram which I received from the Maryland State Grange. The Maryland State Grange, the Indiana State Grange, and the Ohio State Grange are meeting yesterday and to-day, and, I think, the Pennsylvania State Grange.

Mr. HASKINS. And the Vermont State Grange, I understand.

RESOLUTIONS OF STATE GRANGES.

Mr. SMITH. That is the reason we can not present any more resolutions than we have.

Mr. COLE. You have not heard from Ohio?

Mr. SMITH. No, sir. I believe they are meeting to-day. Even down in the State of Kentucky, where Mr. Trimble comes from, and right adjoining the State from which Mr. Gaines comes—both ardent free-seeders; I do not take any issue with them on that subject—but even in the State of Kentucky the Kentucky State Grange had this matter brought before it at a joint meeting of the State Grange and the Farmers' Institute, presented by some of their members, and they got up immediately and unanimously adopted resolutions, which I will have the pleasure of presenting to the committee, against this free-seed distribution as it is at present conducted.

Resolutions adopted by the joint convention of the Farmers' Institute and Kentucky State Grange, at Lexington, Ky., October 24, 1906.

Whereas the distribution of common garden seeds by the United States Department of Agriculture has become a misuse of public funds; and

Whereas the farmers of this country derive comparatively no benefit from it, and we believe that the money could be more wisely expended: Therefore, be it

Resolved, 1. That we are opposed to the Congressional free distribution of seeds as now conducted.

2. That we heartily indorse the action of the Agricultural Committee of the House in omitting from the agricultural appropriation bill the amount annually expended for this purpose.

3. That we appeal to the President of the United States and our Senators and Representatives in Congress to oppose this appropriation in the future and to devote the amount now annually appropriated toward the upbuilding of our agricultural colleges and experimental stations, the development of important crops, and the advancement in education pertaining to agriculture.

I also submit this telegram concerning the action of the Ohio Grange:

CLEVELAND, OHIO, December 14, 1906.

WILLIAM WOLFF SMITH,
Munsey Building, Washington, D. C.:

Ohio State Grange unanimously opposes free seed distribution.

A. C. KENTEEL.

Also the resolutions adopted by the Ohio State Grange, as follows:

Resolved, That the Ohio State Grange heartily indorses the action of the National Grange in its opposition to free seed distribution.

Mr. SCOTT. What is the telegram you now have in your hand?

Mr. SMITH. This one is from the Maryland Grange:

Action has been taken and resolutions adopted.

F. A. HINKLE.

HOW IT IS DONE.

In explanation of how we do this work, I will say that I saw Mr. Hinkle's name on a letter head of the State Grange. I knew the Grange was going to meet in Cumberland, Md., and I wrote a letter of eight or ten lines, put a 2-cent stamp on it and sent it. The Grange meets, adopts the resolution, and the telegram comes to us. It only costs 2 cents. We do not need money. If I had \$10,000 or \$50,000 which I might spend, I might be tempted to go and put it in somebody's pocket, or throw it over a transom, as I have heard has been done. [Laughter.] We do not need much money for this campaign. I send out mimeographed circular letters, under 1-cent postage—that is, to the granges—about the various resolutions.

They meet and discuss the proposition. They adopt resolutions and they send them to their Senators or Representatives, to the committees or to me. I do not even inclose a stamped return envelope for this purpose. There is no use telling me that when a farmer sits down and writes you gentlemen that his association is unanimously opposed to this distribution, that such sentiment is manufactured. All we do is to call their attention to the fact that you are considering the question and they give you their views. As the parties most interested, their views, in my opinion, should receive consideration at your hands.

While we are on the subject of State associations may I direct your attention to the following, adopted at the thirty-fourth annual session of the State Grange of Illinois, December 12-14, 1905:

Resolved, As practical and independent farmers, that we call upon Congress to abolish its petty, annoying, and needless practice of broadcasting free and common garden seeds all over the rural districts, and that the control of seed distribution be placed under the Department of Agriculture and limited to experimental work.

OLIVER WILSON, *Master*,
JEANNETTE E. YATES, *Secretary*,
Illinois State Grange.

Resolution adopted at the annual meeting of the Minnesota State Agricultural Society, in Minneapolis, in January, relating to free seed.

Resolved, That, in our judgment, Congress should cease appropriating public money to pay for the distribution of seeds, and our Representatives in Congress are requested to use their influence to this sensible end.

E. W. RANDALL, *Secretary*.

Resolution adopted by the twentieth annual closing Wisconsin Farmers' Institute,^a held at Plymouth March 13, 14, and 15, 1906.

Resolved, That the Round-up Farmers' Institute of Wisconsin urge the Congressmen and Senators from Wisconsin to vote to abolish the free distribution of common seeds by the Government, and to favor the appropriation of more money in the introduction of valuable new seeds and plants and in the improvement of plants and animals by breeding.

Also to resolutions of the New Jersey State Grange; the California State Horticultural Society; the New York Produce Exchange; the Louisville Chamber of Commerce; the New York Horticultural Society; the New York State Grange; New York State Fruit Growers' Association; New York State Sheep Breeders' Association; New York State Association of Bee Keepers' Societies; New York State Poultry Society; New York Florists' Club, etc.

But I have been asked by the agricultural press to personally present their resolutions. I have here the resolutions of the executive committee of the National Agricultural Press League, and also the resolutions of the league, and as these various agricultural associations meet you will hear more from them. I am sure of that. This is not very long. It reads:

NATIONAL AGRICULTURAL PRESS LEAGUE.

OFFICE OF SECRETARY.

Chicago, Ill., December 6, 1906.

NATIONAL AGRICULTURAL PRESS LEAGUE ON THE FREE DISTRIBUTION OF SEEDS.

At the annual session in Chicago, December 5, 1906, the National Agricultural Press League adopted by a unanimous vote the following resolutions:

Whereas, notwithstanding the protests of the farmers of the country, irrespective of locality or political affiliations, Congress at its last session again determined to continue the doubtful policy of distributing seeds of common and well known varieties; and

Whereas the National Grange, the Farmers' National Congress, and hundreds of State and local agricultural and horticultural societies have adopted resolutions denouncing this practice and calling on Congress to turn the money over to the Department of Agriculture for work with the State experiment stations in the developing new varieties of seeds and plants suitable to the localities; and

Whereas we believe that a vast majority of the farmers of this country are opposed to the existing policy: Therefore, be it

Resolved, That the National Agricultural Press League hereby reaffirms its opposition to the Congressional free seed distribution as at present conducted.

Resolved further, That copies of this resolution be sent to all members of this league and to the members of the Committee on Agriculture of the United States Senate and House of Representatives.

The members of the National Agricultural Press League are: Southern Ruralist, Atlanta, Ga.; Farmer's Call, Quincy, Ill.; Farm Home, Springfield, Ill.; Prairie Farmer, Chicago, Ill.; Live Stock World, Chicago, Ill.; Farmer's Guide, Huntington, Ind.; American Farmer, Indianapolis, Ind.; Up-to-Date Farming, Indianapolis, Ind.; Homestead, Des Moines, Iowa; Kansas Farmer, Topeka, Kans.; Missouri Valley Farmer, Topeka, Kans.; Farm Poultry, Boston, Mass.; Farm and Home, Springfield, Mass.; Michigan Farmer, Detroit, Mich.; Rural Magazine, Detroit, Mich.; Farm, Stock and Home, Minneapolis, Minn.; Farmer and Stockman, Kansas City, Mo.; Drovers' Telegram, Kansas City, Mo.; Fruit Grower, St. Joseph, Mo.; Colman's Rural World, St. Louis, Mo.; National Farmer and Stock Grower, St. Louis, Mo.; Northwestern Stockman and Farmer, Helena, Mont.; Metropolitan and Rural Home, New York, N. Y.; Ohio Farmer, Cleveland, Ohio; Gleanings in Bee Culture, Medina, Ohio; Farm and Fireside,

^a This institute is supported by the State of Wisconsin, and is attended by 1,400 representative farmers.

Springfield, Ohio; Farm News, Springfield, Ohio; Pacific Northwest, Portland, Oreg.; Farm Journal, Philadelphia, Pa.; National Stockman and Farmer, Pittsburg, Pa.; Parks Floral Magazine, La Park, Pa.; Southwestern Farmer and Breeder, North Fort Worth, Tex.; Farm and Ranch, Dallas, Tex.; New England Farmer, Brattleboro, Vt.; Hoards' Dairyman, Fort Atkinson, Wis.; Wisconsin Farmer, Madison, Wis.

Very respectfully, yours,

JAMES M. PIERCE, *President.*
JOHN M. STAHL, *Secretary.*

Resolution by the executive committee of the National Agricultural Press League on free seed distribution.

At a meeting of the executive committee of the National Agricultural Press League, held at St. Louis, Mo., May 12, the following resolution was adopted:

Resolved, That the National Agricultural Press League is opposed to the Government distribution of free seeds except so far as it is necessary for experimental purposes in the introduction of new, rare, and valuable seeds within the meaning of the original act authorizing seed distribution. The distribution of ordinary field, vegetable, and garden seeds as a gift from the Government is a degeneration from the original purpose and is not approved in principle or practice by self-respecting farmers or farmers' associations throughout the country, and there is no more to be said in favor of Government seed distribution as at present conducted than there would be in favor of a regular distribution to farmers or any other class of citizens of free beef, free sugar, or free flour at the expense of the taxpayers of the country.

It is directed that a copy of this resolution be sent to all Senators, Members of Congress, the United States Agricultural Department, agricultural papers, and to others interested.

PHILIP H. HALE,
CHARLES F. MILLS,
JOHN M. STAHL.

Executive Committee Agricultural Press League.

MR. SMITH. They have sent those resolutions to me and asked me to present them to you gentlemen, and I am very glad to be able to do so. In that connection I will say that not a penny was given them. They printed this at their own expense and sent it around to the other people at their own expense. They sent it to all the agricultural papers at their own expense, they were so interested in this matter.

We are not buying them and did not have to. There is no use in my reading these other resolutions [indicating], but I would like to have the members of the committee examine them and look at them to see what the farmers say on this subject. They write these resolutions. There are only two typewritten resolutions in the whole lot. No, there is only one, because I have a duplicate copy of this one. The resolutions of the Rippowam Grange are the only ones that are typewritten. The farmers write them out with their own hands and send them to me and to the Committee on Agriculture of the House and to the Committee on Agriculture of the Senate, all in response to a 1-cent circular. They must be interested in the subject.

I have time to read only a few extracts from a portion of the resolutions received. From granges, Patrons of Husbandry, I quote several, as follows:

Acorn Grange, No. 418, South Cushing, Me.: Believing that the free distribution of seeds by Congress is of no benefit and a useless extravagance * * * we protest against any further appropriation for that purpose.—B. L. Stevens, master.

Wilson Grange, East Wilton, Me.: * * * The members of Wilson Grange, No. 321, do wish to enter protest against the free distribution of so-called "rare and valuable" seeds and any appropriations whatever for this purpose, and also ask all Representatives and Senators to vote squarely against it.—E. E. Hardy, master.

Canton Grange, No. 110, Canton, Me.: * * * Disapprove of the practice of Congress in annually appropriating a large sum for the purchase and distribution of so-called "rare and valuable" seeds, considering it an extravagant and useless expenditure of the people's money. * * * And we petition Senators Hale and Frye, from Maine, also the Representatives in Congress, to vote against any appropriation for the free distribution of common garden seeds at the next session of Congress.—Mrs. C. W. Walker, secretary.

Pine Grove Grange, Bath, N. H.: * * * Voted unanimously that the free distribution of seeds by the United States Government be discontinued, as it is certainly a needless waste of money.—Henry S. Long, master.

Chester Grange, No. 169, Chester, N. H.: It was voted that the sentiment of the grange was against the sending of free seeds.—Susie M. Gillingham, secretary.

Worcester and Norfolk Pomona Grange, No. 10: * * * Passed a unanimous vote against the free seed distribution.—Moses U. Gaskill, master.

Granite Grange, South Worthington, Mass.: Voted unanimously: "Not in favor of the free seed distribution."—C. D. Blair, secretary.

East Lyme (Conn.) Grange, No. 157: It was voted: That we condemn the practice of the Government in sending out "free seeds."

Rippowam Grange, No. 145, Long Ridge, Stamford, Conn.: We * * * do hereby condemn unequivocally the free distribution of seeds.

Lindenwald Grange, No. 985, Kinderhook, N. Y.: *Resolved*, That it is the unanimous sentiment that the free distribution of garden and other seeds by the Members of Congress is unnecessary and useless waste of money that should be stopped at once, and we petition our Congressmen and Senators to use their utmost endeavors to put an end to this useless waste of money.—Eugene Merwin, secretary.

Onondaga County Pomona Grange, N. Y.: Passed resolutions opposing the annual appropriation for the purchase and free distribution of seeds by Congress, and recommended the 30 subordinate granges of the county to do likewise. Our farmers' club will also pass resolutions.—John T. Williams.

Tarrytown Horticultural Society: *Resolved*, That we, the members of the Tarrytown Horticultural Society, sternly oppose any further appropriation of public money for the free distribution of common seeds.

Knoxboro (N. Y.) Grange, No. 758: * * * Passed resolutions protesting against the distribution of free seed.—Mrs. E. T. Stone, secretary.

Thorofare Grange, Paulsboro, N. J.: Our grange is sending a set of resolutions to our Congressional Representatives to vote against any further appropriation for free seed distribution.—Rodman W. Clermont, secretary.

Ramsey (N. J.) Grange, No. 135: Ramsey Grange condemns the free seed distribution, as they think it unnecessary expense. Ramsey Grange has 200 members.—John H. Coe, master; E. C. Gurney, secretary.

Central Grange, No. 194, Towanda, Pa.: * * * We are opposed to any "free seed appropriation."—D. W. Post, secretary.

Fairview Grange, No. 817, Farmington, Pa.: *Resolved*, That this grange and the farmers of this section demand that Congress pass a law abolishing the sending out of free seeds by Members of Congress.—Frank B. Brown, Harry Van Dusen, Wallace W. Davis, committee.

Wyebrook Grange, No. 1306, Barneston, Pa.: * * * Unanimously condemn the practice of free-seed distribution and hereby demand that the law be repealed.—J. F. Lautz, master.

Spring Brook (Pa.) Grange, No. 1037: * * * Has passed resolutions about the free-seed bill and sent same to the chairmen of the committees.—W. J. Jones, secretary.

Beaver Grange, No. 838, Conneautville, Pa.: Beaver Grange took action and went solid "antiseed."—S. B. Lawrence, W. R. De Groot, committee.

Holton (Mich.) Grange, No. 585: * * * Unanimously voted against the free-seed distribution.

Ashbaugh Grange, No. 1202, Lake City, Mich.: Adopted resolutions condemning the practice of free-seed distribution and calling on our Senators and Representatives to vote against any appropriation for the free distribution of

common garden seeds at the next session of Congress.—Ida M. Teachout, secretary.

Gnadenhutten Grange, No. 1486, Uhrichville, Ohio: * * * Is opposed to the present practice of the free distribution of garden or other seeds by Congress.—Alice Gram, secretary.

Berlin Grange, No. 629, Delaware, Ohio: Unanimous opinion that such distribution is a useless expenditure of public money.—Elsie English, secretary.

Washington Grange, No. 5, Logan, Ohio: Stands unanimously opposed to the free distribution of so-called "rare and valuable" seeds as a genuine farce. That it is sheer waste of public money to continue the shameful fallacy.—E. E. Parish, master; J. W. Schaal, secretary.

Sylvester (Pa.) Grange, No. 1078: * * * Resolutions passed asking our Senators and Congressmen to use all legitimate means to put a stop to the free seed distribution.—Hettie Daugherty, secretary.

Corydon (Pa.) Grange, No. 1205: * * * *Resolved*, That we protest against and denounce the free seed distribution by Congress as an imposition on the people and a damage to agriculture. * * *—R. Canfield, master; A. W. Reeves, secretary.

Quincy (Mich.) Grange, No. 152: *Resolved*, That Congress make no more such appropriation, and that our Representatives in Congress be sent a copy of these resolutions, and that they be earnestly requested to vote against further appropriations.—D. B. Scriptor, secretary.

Belleville (Mich.) Grange, No. 331: Instructed their secretary to write Senators and Representatives to vote against free distribution of seeds.—Margaret E. Hope, secretary.

Union Grange, No. 811, Rockford, Ill.: Unanimously condemns the practice of free seed distribution and hereby demands that the law be repealed.—T. L. Cleveland, master; Margaret McIntosh, secretary.

Sunnyside Grange, No. 7, Bridgeville, Del.: *Resolved*, That it is the sense of this grange that the free distribution of seeds and plants, as it is now conducted by act of Congress, should be discontinued.—E. M. Wright, secretary.

White Clover Grange, No. 279, Nehalem, Oreg.: *Resolved*, That we are unalterably opposed to the continuance of such distribution, and hereby request our Representatives in Congress to oppose all appropriations for such purposes. B. A. Todd, master; Lillian M. Zaddach, secretary.

Natal Grange, No. 302, Mist, Oreg.: The free distribution of "rare and valuable" seeds by Congress is a delusion and a fraud, as far as assisting agriculture is concerned. *Resolved*, That we denounce the practice of making appropriations for the purchase of such seeds. Nettle B. Peterson, secretary.

Romola Grange, No. 1192: *Resolved*, That we do bitterly protest against the free distribution of seeds by Congress. D. E. Robb, secretary.

Fleetville Grange, No. 1199: *Resolved*, That we declare ourselves in favor of discontinuing the free seed appropriation. E. E. Barber, master; W. H. Van Fleet, secretary.

Rhode Island State Grange, F. E. Marchant, master: You can count upon my doing anything possible to do away with the present method.

Kentucky State Grange and Farmers' Institute: Joint resolution unanimously adopted, recommending that the practice of the United States Congress of furnishing free seeds of all kinds to farmers throughout the United States be discontinued.

Delaware State Grange, Wesley Webb, secretary: I am in favor of confining the free seed distribution to new and valuable varieties, as was originally intended.

Michigan State Grange, Jennie Buell, secretary: I assure you that in so far as I can assist the cause of the suppression of free seed distribution I shall gladly do so.

California State Grange. J. W. Webb, lecturer: Hits me just right. For years I have protested. Wish you abundant success.

Emily L. Burnham, Michigan State Grange: I will bring the matter of the free distribution of seeds before the State Grange at its next meeting, also before the subordinate grange of which I am a member.

New Hampshire State Grange. H. O. Hadley, master: I believe, as you and as a large majority of the farmers, that this waste of money should be stopped.

Nashua (N. H.) Grange. J. Earlford Hall, master: I am heartily in favor of your idea and will present it to the next meeting of Nashua Grange.

Erral (N. H.) Grange. S. R. Hanscom: I shall be most happy to do what little I can to stop the useless waste of Government funds through this free dis-

tribution. I will place your letter before my grange at its next meeting and have them act upon the matter.

Maine State Grange. O. Gardner, master: I am in full sympathy with you in regard to the free-seed-distribution humbug and will assist in every way in stopping the confounded nuisance.

Minnesota State Grange. S. G. Balrd, master: Will be glad to do anything to help the good work along.

Also a few selected opinions of individuals, which will be of interest:

Harvie Jordan, president Southern Cotton Association: I will use the subject-matter as a basis for an editorial in The Cotton Journal at some time in the near future.

J. Harvey Whiteman, attorney, Wilmington, Del.: I take pleasure in adding my support to the movement that has been inaugurated looking toward the appropriation of funds, which have hitherto been applied to the distribution of seeds, to the Department of Agriculture in the various agricultural colleges.

Charles A. McClure, Walthall, Miss.: In reference to free distribution of seeds I will say that it is condemned by the farmers and people of this section. I think that the distribution of rare and valuable seeds would be universally favored.

James H. Jackson, M. D., The Jackson Sanatorium, Dansville, N. Y.: I heartily approve of your fight.

C. Watt Brandon, Pinedale, Wyo.: I would most certainly be in favor of rare and valuable seeds and seeds adapted to the various altitudes. Many of the seeds now sent to this high altitude, 7,169 feet, are seldom planted.

C. W. Eichling, manager Avenue Floral Company, New Orleans, La.: I shall not fail to bring the matter before the four horticultural societies we have in the South. I can assure you in advance of their hearty cooperation.

B. F. Smith, fruit and plant grower, Lawrence, Kans.: I was on the committee on resolutions at the August meeting of our county horticultural society. Our society was about unanimous in vote against free distribution of free seed.

W. A. Wickham, Tipton, Iowa: In regard to the Congressional free-seed distribution I will say that I am, and always have been, unalterably opposed to it.

C. M. Gallup, Brooklyn, Conn.: I am a farmer. I have never heard a farmer say a word favorable to the free-seed distribution, and I live in a section purely agricultural.

C. D. Tuener, Hillsboro, N. C.: We have great confidence in the integrity and ability of Secretary Wilson and his associates. Therefore we would say give him all power consistent with reason to manage the affairs of his Department in such manner as he deems best.

Otis Bigelow, Silver Spring, Md.: I have written a strong letter of protest in the name of the farmers and gardeners of this and other States.

Mason Snowden, Wilkinson County Cotton Association, Woodville, Miss.: In regard to doing away with the free-seed distribution, will say that I am in favor of its annulment.

George P. Hardwick, secretary Farmers' Industrial Union, Britt, Iowa: I have nothing to offer favoring the free distribution of property, whether it be seeds or otherwise.

Colon C. Lillie, president Michigan State Dairy Association: I am heartily in sympathy with your efforts in this matter.

J. R. Simonton, Yarmouth (Mass.) Grange: I have always thought it amounted to nothing and should be stopped.

J. J. Haynle, editor Waynesboro (Miss.) News-Beacon: It would seem to us that this arrangement would be of incalculable benefit.

J. W. Berry, president board of regents Kansas State Agricultural College: I am sure there is not a farmer in this county that would defend it or even apologize for it. Mr. Breed, who represented this county at the farmers' meeting at Rock Island, Ill., says all the farmers at that congress consider this Government distribution a farce. You can count on my active support.

G. A. Ivins, board of directors, Iowa State Horticultural Society: I heartily concur with you in the movement of stopping the free-seed distribution.

Frank C. Pomeroy, Kansas house of representatives, Helton, Kans.: I am fully in accord with your effort to turn the money annually invested in the free-seed farce to better purpose.

James Withycombe, director Oregon Agricultural College and Experiment Station: I am heartily in sympathy with your movement for the elimination of the free-seed graft.

Andrew Olander, Isanti: I will do all I can to help do away with the free-seed distribution.

Mr. SMITH. I was not going to say anything about this, but Mr. Candler brought up the matter yesterday, after the hearing, and I want to state to the committee that in preparing the groundwork for this I thought it would be well to see what kind of a poll I could make of the House and the Senate. I wrote the members of both bodies a letter. I sent out three different kinds of letters to Members of the House. I sent one letter to those Members who had voted against free seeds, another to those Members who had voted in favor of free seeds, and still another to those who did not vote at all. I asked those who had voted against it to do so again. I asked those who were in favor of free seeds to reconsider their attitude, and those who did not vote at all I asked to please vote next time and to vote against free seeds. I do not think exception can be taken to that. This is from the letter of which you received a copy, Mr. Candler:

During the summer the seedsmen shall be in correspondence with many of your constituents on this subject. It would give them great pleasure if they could inform the seed trade of your district that at the next session you will cast your vote against any appropriation for the free distribution of common garden seeds. The seed trade favors the distribution of really "rare and valuable" seeds, but objects to the giving away of pease, lettuce, beans, radish, turnip, and pumpkin seed.

I honestly do not think any Member of Congress can take exception to that or consider it as a threat of any kind. We have been in correspondence. The seedsmen write letters from one to another about this, and wherever we can pick up a man—if we hear of some Member of Congress who did not vote last year—we are very much pleased if we hear he is going to vote against free seed this time. I may say, without mentioning names, that one of the gentlemen who took a most prominent and most influential part in the debate last year told me voluntarily that he has heard from the farmers of his district that they did not want these seeds; that they had adopted resolutions and sent them to him, and he said:

I am not going to speak against you on this subject, and I think you can safely say I am going to vote against free seeds this year.

That is the whole story. Are there any questions now that you would like to ask?

The CHAIRMAN. I would like to ask what answer you got from the gentleman from Mississippi?

Mr. CANDLER. He did not get any.

The CHAIRMAN. He did not make any answer at all?

Mr. SMITH. No; I do not think he did. A good many replied, and a good many said they would give it consideration.

Mr. CANDLER. That is one of the few letters I did not answer. I have it right here now.

Mr. SMITH. I am sorry he did not answer it.

Mr. CANDLER. I have it right here.

Mr. SMITH. I am sorry he did not write and say, "Gentlemen, I shall certainly vote next year in the committee and on the floor of the House to give the people really rare and valuable seeds, as you sug-

gest, instead of common pumpkin seeds," but he did not. He has not yet, but I still have hopes. [Laughter.]

Mr. CANDLER. I never believe in people having false hopes. Therefore I will say that your hopes are unfounded.

Mr. SMITH. You would not vote against free seeds for any consideration or under any circumstances?

Mr. CANDLER. I will give the seeds to the farmer.

The CHAIRMAN. Mr. Smith, will you get that compiled in concise shape, so that it can be put in the record?

Mr. SMITH. Yes, sir.

Mr. HASKINS. Be sure that you spell according to the standard dictionaries.

Mr. SMITH. I can not spell any other way.

Mr. Chairman, if we have not made out a case now, I do not see how we can do it. We may get some more resolutions from granges or horticultural societies. I am sure all the State boards of agriculture are taking up the matter, we get a few new ones every day; but we can not make a much better case than we have made. If you do not pay any attention to these [indicating], what is the use of our bringing in here two or three or four thousand more editorials or hundreds of additional resolutions?

The CHAIRMAN. The trouble is we do not know what this is.

You must brief it up so that we can get it in the record and know just what the opposition is.

Mr. SMITH. I have it briefed up.

The CHAIRMAN. Then why did you not read it to us? Where is it?

Mr. SMITH. I did not suppose you would put all that in your record.

The CHAIRMAN. Why did you not read it?

Mr. SMITH. I did not know you gentlemen would want to hear it.

The CHAIRMAN. It would not take ten minutes to read a list of the associations you have there, and the granges and societies. That is what we would like to have you do.

Mr. SMITH. I thought I would submit that as part of my remarks.

The CHAIRMAN. Give us the names of the papers, and so forth.

Mr. SMITH. Suppose I read some of the resolutions of the granges now?

Mr. BROOKS. Give a statement of what granges you have that have acted, and what agricultural societies you have that have acted, stating the number that have acted in various States—something of that sort.

Mr. LAMB. You will have plenty of opportunity to put it in the record. Get it up concisely.

Mr. FIELD. Did you make any effort to get an expression of opinion from the southern section of the country?

Mr. SMITH. I did. I wrote to the people in the South. Mr. Candler will doubtless bear me out, and all the Southerners will bear me out in the fact that there are not very many farmers' organizations in the South of a general character. They are tobacco associations and cotton associations principally, and fruit growers and so on. It is hard to get these names. I had to write to the various members of the boards of agriculture of all the States, asking them to send me the names of the different organizations.

Mr. FIELD. Did you get an expression from the State of Texas?

Mr. SMITH. We have a resolution from the State of Texas. I would like to read it for the benefit of Mr. Field.

Mr. FIELD. From the agricultural college?

Mr. SMITH. Yes; I have a number of them.

The South Texas Fruit and Truck Growers' Association, consisting of affiliated local associations throughout south Texas and the Gulf coast country, the total membership of which is over 1,300, passed unanimously the following resolutions during their regular meeting at Edna, November 13 and 14:

Whereas the free garden seed received from Members of Congress at the expense of the General Government are usually of varieties known to be unsuited to the soil and climate of south Texas, and hence are worthless to us; and

Whereas these seed are sent to us by our Representatives in Congress under the mistaken idea that a favor is being conferred, which mistaken idea we hereby wish to correct; and

Whereas the expense to the General Government of obtaining seed and distributing them is a considerable item, and a serious economic waste wholly unjustified by the results obtained; and

Whereas the amount of money spent annually for seed distribution, if apportioned among the United States experiment stations, would be a thousand times more beneficial to each of us than as now spent, for it would enable more investigators to work on horticultural problems the solution of which would be of lasting value to every vegetable grower and to the whole State: Therefore be it

Resolved. That we, the South Texas Fruit and Truck Growers' Association, thank our Representatives in Congress for their past favors in the way of free seeds, but assure them that these favors were mistaken kindnesses on their part; that we condemn the practice of free distribution of garden seeds as an economic waste wholly unjustifiable; that in the future we will not accept from the Government free garden seeds; that we urge our Representatives, as a favor which we will heartily appreciate, to vote against the bill appropriating funds for the distributing of free garden seeds, and to use their influence to have the amount thus saved appropriated to the experiment stations of the country, whose valuable work is indorsed by all right-thinking men.

Resolved further, That a copy of these resolutions be sent each Congressional Representative from South Texas and to the press of the State with a request for its publication.

W. H. TRAVIS,

Palacios, President.

S. A. MCHENRY,

Santa Maria, Vice-President.

C. A. WALTON,

Victoria, Secretary-Treasurer.

RESOLUTIONS HOUSTON (TEX.) TRUCK GROWERS.

Whereas the law creating the Department of Agriculture does not authorize the purchase and free distribution of common garden and field seeds, but only of new or rare foreign seeds or plants not in commerce of the United States; and

Whereas the free distribution of common garden and field seeds is class legislation, pure and simple, and therefore contrary to the letter and spirit of the Constitution of the United States; and

Whereas the purchase of common garden and field seeds for free distribution necessitates the expenditure of nearly \$250,000 annually, which amount is vastly in excess of the actual and practical value of said seeds; and

Whereas the aforesaid \$250,000 could be diverted into channels which would lead it to results more highly beneficial to the advancement of agriculture in the United States; and

Whereas the United States Post-Office Department suffers an annual loss of about \$250,000 by the free forwarding of said free seeds; and

Whereas by far the greater majority of the people generally, and all self-respecting farmers especially, not only do not appreciate, but resent, this paltry attempt of governmental benefaction: Therefore be it

Resolved. First. That we, the members of the Houston Truck Growers' Association, condemn the practice of free seed distribution for the reason above stated, and we respectfully solicit our honourable Representatives in the United States Congress to make every effort to bring about a cessation of the pernicious usage of free seed distribution.

Second. That the secretary of this association prepare one copy each of this resolution for publication in the Southern Shippers Guide and Texas Farm and Ranch; and further to mail one copy each to the Hon. John M. Moore and the Hon. C. A. Culberson, members of the National House of Representatives and the United States Senate, respectively.

Third. That these resolutions be spread upon the record of this association.

Mr. BROOKS. What did the press of Texas do after that?

Mr. SMITH. That is part of what they did [indicating].

Mr. BROOKS. Have you any summary? Was it considerable or inconsiderable?

Mr. SMITH. In Texas?

Mr. BROOKS. Yes.

Mr. SMITH. There are a good many papers in Texas that I have never seen, of course, and it has only been a month ago that these resolutions were adopted; but I will say that I have never seen an article in a Texas newspaper in favor of this pumpkin-seed distribution, and I have a great many in that bunch, as you will see if you will be good enough to examine these exhibits.

Mr. CANDLER. The gentleman from Colorado suggests that he can not read all that, and he suggests that you summarize that.

Mr. BROOKS. It would save time if you gave the resolutions by sections or States.

Mr. SMITH. I have that, but I can not lay my hands on it.

Mr. BROOKS. Furnish it to the stenographer, so that it may go into the record and so that we may refer to it and handle it quickly.

Mr. SMITH. Mr. Field is from Texas. These resolutions were forwarded from the horticultural experiment station in Texas, the department of agriculture, the experiment station, and so forth, and they all agree on this thing. We had nothing to do with these. That is from your constituents.

If you gentlemen will allow me, I will present all this matter in tabulated form, giving a list of the newspapers which have opposed it editorially, a list of the newspapers which have written letters on this subject, a list of the organizations that have adopted resolutions, and perhaps the gist of those letters from the professors of the agricultural experiment station.

The CHAIRMAN. Do that by States, Mr. Smith.

Mr. SMITH. There will be considerable difficulty in doing that.

The CHAIRMAN. But that is the proper way to present it.

Mr. SMITH. It is quite a task.

The CHAIRMAN. Take the newspapers in each State, the farmers in each State, and the agricultural organizations in each State. Take it by States.

Mr. SMITH. Yes, sir.

Mr. HASKINS. This matter will not come up before the holidays, and we will hold the record open.

Mr. COCKS. I have a communication from the farmers' club in

my district, and I think it would be proper to have it go into the record at this hearing. I will give it to the stenographer.

The CHAIRMAN. State the substance of it.

Mr. COCKS. It is a resolution adopted by the Long Island Farmers' Club, an organization in my district, in opposition to the free distribution of garden seed. They state why they are opposed to it, and what they would be glad to have the money diverted for.

The CHAIRMAN. What do they want to have done with it?

Mr. COCKS. I will read the resolutions:

1. Whereas to increase the food from our lands it is necessary that improved varieties and new species be introduced.

2. Whereas to combat the increasing insect, fungous, and climatic difficulties, plant breeding is one of the best methods.

3. Whereas plant breeding and selection is too slow and too little rewarded by patent or otherwise to encourage private enterprise.

4. Whereas Government aid to agriculture has been of great benefit.

5. *Be it resolved*, That the Long Island Farmers' Club ask Congressman William W. Cocks to urge the United States Department of Agriculture to advance plant breeding, selection, and introduction for this region.

The CHAIRMAN. If there is no objection, it will go into the record.

The communication presented by Mr. Cocks is as follows:

WESTBURY STATION, LONG ISLAND,
December 10, 1906.

Hon. W. W. COCKS,

Washington, D. C.

DEAR SIR: For the hearing in opposition to the Congressional seed distribution, I present the following resolution of the Long Island Farmers' Club:

"Whereas to increase the food from our lands it is necessary that improved varieties and new species be introduced; and

"Whereas to combat the increasing insect, fungous, and climate difficulties, plant breeding is one of the best methods; and

"Whereas plant breeding and selection is too slow and too little rewarded by patent or otherwise to encourage private enterprise; and

"Whereas government aid to agriculture has been of great benefit: Therefore, be it

"*Resolved*, That the Long Island Farmers' Club ask Congressman William W. Cocks to urge the United States Department of Agriculture to advance plant breeding, selection, and introduction for this region."

The original intent and wording of the law should be carried out. The best way is to add to the appropriations for plant introduction and plant breeding by the Department of Agriculture and by the various State agricultural experiment stations.

The farmers who object to the present free-seed distribution can not be expected to appear, as it is a matter of small importance to each. Their objection should have far greater weight with you than the protest of the seedsmen. Therefore, the only way to decide is from principle. The present distribution is largely contrary to the principles of our Government.

The most valid claim is that it has increased the use of vegetables and improved the diet of the people. This educational value is slight and can be better accomplished by other and more direct methods, as by distributing seeds and instructions for growing and preparing vegetables where needed.

I have no interest in the protest of the seedsmen. I have been testing hundreds of species of trees and other plants from all regions of temperate climate. This nursery has been a testing ground for sixty years. Long Island has been the testing ground of foreign trees as long as any part of the country. The study results in this conclusion: Most European species are unhealthy here. Most of our improved fruits are from Europe and their cultivation entails great loss. Our native species are more healthy and from them have developed our grapes, gooseberries, raspberries, and blackberries, while the corresponding European species have failed here and succeeded in California. The species from Japan and eastern Asia are healthier than the European and

include many valuable food plants, the flavor of which are not always up to our standard.

Plant breeding and plant selection with all the above is necessary in each region. There is no private interest engaged in the work which objects to the Government doing it also.

Plant breeding is a move in the right direction. It is as certain as the work of Edison with electricity. Government scientists are now competent to do it. The people are ready to keep it going. The extravagant stories about Burbank and the Burbank jokes show that the subject is widely understood. Improvement of living things is the highest work the Department of Agriculture can do. It is hastening the evolution of civilization in the right direction. The Department and the State agricultural experiment stations have done good work in plant improvement, are well organized, have competent men, and can train more. Of course there will be difficulties. Results may be slow. Appropriations may be cut down. Results will be sure and great. For evidence, see the great improvement in the little work that has been done.

Sincerely,

HENRY HICKS, *President.*

Professor MASSEY. I would like to say one thing in regard to the way the farmers are thinking over this matter. Yesterday afternoon I addressed a convention of farmers in Adams County, Pa., near Gettysburg. I had not said a word to them about this free seed distribution, but as I was about to leave there I was asked, "Do you not think it would have some influence if we would pass a resolution in that regard?" I said, "I believe it would, but the hackman is at the door waiting to take me to the station, and I am bound to go to Washington to-night." Whether they did pass a resolution or not I do not know, but it was their own notion. The farmers all over the country are thinking about this matter, and men who are too independent to ask for the gift are anxious that Congress should do away with this thing and use this money as it should be used, for the benefit of agriculture.

The CHAIRMAN. We will now close the hearings, except that I would like the committee to remain for just a few minutes, that we may decide as to when we will hear Doctor Galloway.

Mr. CANDLER. I have here a couple of letters which give in a concise form information in regard to the amount expended for seeds and plants and the amount expended for salaries and other expenses in connection with this work.

The CHAIRMAN. Pick out the right point in the record where it should be inserted and put it in.

Mr. CANDLER. I think it would come in under the statement on my part that it gives information in reference to this matter.

The CHAIRMAN. Do you want it to follow any questions of yours?

Mr. CANDLER. No; I want it to go in right here. It explains itself, and gives in detail the expense and how it is allotted to each part of the work, the expense of each part of the work, and everything of that kind. It goes into detail with reference to the whole matter. One of these letters is from Doctor Galloway—two, I think, from him—and one from the Secretary himself. The one written by the Secretary was addressed to Mr. Tawney, a copy of which I have received.

The letters above referred to are as follows:

UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT INDUSTRY,
Washington, D. C., December 11, 1906.

Hon. E. S. CANDLER, Jr.,
House of Representatives.

DEAR MR. CANDLER: I have yours of 10th instant in reference to information regarding the seed distribution. I expect to be present myself at the hearing to-morrow, Wednesday.

I can send no additional data to what was furnished last year, as there have been no specially new developments. Inclosed is copy of letter addressed to you last year; also of one sent to Mr. Tawney, signed by the honorable Secretary.

Special emphasis should be put on the fact that we are not spending \$242,000 for ordinary grain seed, but that the work is divided into three groups:

1. The securing, handling, and distributing of miscellaneous garden and flower seeds, grapevines, strawberry plants, ornamentals, etc., \$132,754.73.

2. The securing and distributing of comparatively new or little known kinds of various field and forage crop seeds, such as cotton, corn, alfalfa, etc.; the improvement of the same by breeding and selection, and the general upbuilding of agricultural industries through such work. For this work we expended last year \$72,385.27.

3. The introduction and dissemination of new and promising seeds and plants from foreign countries and the building up of new industries as the result of the work. Last year we expended \$37,780 for this work.

each of which is costing as mentioned under the above groups. I will be glad to explain verbally any further points in reference to the matter at any time.

Very truly, yours,

B. T. GALLOWAY, *Chief of Bureau.*

UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT INDUSTRY,
Washington, March 10, 1906.

Hon. E. S. CANDLER, Jr.,
House of Representatives, Washington, D. C.

DEAR MR. CANDLER: I have your letter of recent date asking for full information relative to the purchase and distribution of seeds and plants by the Department. In order to bring the facts together in concrete form I will take them up under certain heads, as suggested in your letter.

Total amounts appropriated and expended for seeds and plants since 1865, when the Department was organized.

Year.	Appropriated.	Expended.	Year.	Appropriated.	Expended.
1865	\$61,000.00	\$61,000.00	1886	\$100,000.00	\$99,980.24
1866	70,165.90	70,165.90	1887	100,000.00	99,998.37
1867	115,200.00	115,200.00	1888	103,000.00	102,587.55
1868	85,200.00	85,200.00	1889	104,200.00	104,188.73
1869	20,000.00	20,000.00	1890	104,200.00	104,174.56
1870	20,000.00	18,941.33	1891	105,400.00	105,090.94
1871	30,000.00	28,865.17	1892	150,000.00	
1872	45,000.00	45,000.00	1892	105,400.00	104,920.35
1873	55,000.00	55,000.00	1893	135,400.00	134,908.27
1874	65,000.00	64,904.89	1894	135,400.00	119,719.76
1875	95,000.00	94,719.83	1895	165,400.00	120,545.15
1876	65,000.00	65,000.00	1896	135,400.00	126,476.87
1877	85,000.00	80,000.00	1897	150,000.00	142,822.52
1878	75,000.00	74,579.33	1898	130,000.00	121,870.38
1879	75,000.00	75,000.00	1899	130,000.00	127,150.52
1880	75,000.00	75,000.00	1900	130,000.00	118,561.53
1881	102,160.31	102,157.48	1901	170,000.00	149,615.49
1882	110,000.00	99,991.53	1902	270,500.00	266,614.12
1883	80,000.00	80,000.00	1903	270,000.00	253,183.70
1884	75,000.00	74,986.48	1904	290,000.00	284,254.21
1885	100,000.00	99,983.82	1905	290,000.00	280,530.30

* For drought sufferers. Not used.

Total appropriations, \$4,767,526.21.

In the foregoing table we have set forth the total amount appropriated and spent for seeds and plants since 1865. The figures are self-explanatory, but it must be borne in mind that they cover all expenditures, and are not for miscellaneous garden and flower seeds alone.

HOW THE WORK HAS BEEN HANDLED.

The business of securing, handling, and sending out the seeds and plants of the Department has been conducted in various ways. For a time the Department did all the work, but as it grew the labor proposition became a serious one. The plan of letting out the work by contract was then resorted to, the contractor furnishing all seeds and labor, under the supervision of Department officers. The contract system was kept up until five years ago, when the whole work was turned over to the Bureau of Plant Industry. There were serious defects in the contract system, it being impracticable in this way to secure the very best seeds and for the Department to exercise proper supervision over it. When the work was turned over to the Bureau of Plant Industry, an effort was made to thoroughly systematize it and to put it on a practical business basis. To this end arrangements were made for the Department to secure all the seed, in this way exercising absolute control over the kinds of seed secured, their vitality, trueness to name, and other essential things.

KINDS OF WORK CARRIED ON.

The work of seed and plant distribution as now conducted by the Bureau of Plant Industry falls under three principal heads, viz:

(a) The securing, handling, and distributing of miscellaneous garden and flower seeds, grapevines, strawberry plants, etc.

(b) The securing and distribution of comparatively new or little-known kinds of various field and forage crop seeds—such as cotton, corn, alfalfa, etc.; the improvement of the same by breeding and selection, and the general upbuilding of agricultural industries through such work.

(c) The introduction and dissemination of new and promising seeds and plants from foreign countries and the building up of new industries as the result of this work.

(A) THE SECURING, HANDLING, AND DISTRIBUTING OF MISCELLANEOUS GARDEN AND FLOWER SEEDS, ETC.

This work as now conducted costs about two-thirds of the total amount appropriated. The Department has a thorough system of handling the entire work, the object being to secure the very best seeds obtainable and to be certain that they are true to type. A considerable portion of the seed sent out is grown for the Department out of selected stock. In order to keep thoroughly abreast of the times in these matters a number of testing stations have been established, where not only all of the miscellaneous varieties sent out are thoroughly tested to determine their trueness to type, but everything promising offered by seedsmen is also tested with a view to making use of it in future distributions. The Department has adopted the most rigid system of testing the vitality and purity of seeds. The seed laboratory of the Bureau of Plant Industry devotes a considerable part of its work to this subject, so that all seeds, from whatever source, are thoroughly tested before they are sent out. They are tested not only to determine their trueness to name and type, but as to their vitality and purity as well.

As to the value of this miscellaneous distribution of garden and flower seeds, it is very difficult to state what it may be. There is little doubt in my mind that such distribution accomplishes more or less good. Very few reports are received, however, and in the nature of the case it is impossible for us to use any but standard varieties in the distribution, because the quantities required make it impossible to use the rarer sorts. When this distribution was first undertaken a great many years ago there is no doubt that it accomplished much good, because at that time the seed industry was not as thoroughly organized as it is to-day. The practice of ordering through the mails from seed catalogues was not then in vogue, and it was extremely difficult for persons living in isolated localities to secure good garden seeds. This condition has changed, however, and to-day it is quite possible for anyone to buy garden seeds of the same varieties as we distribute.

(B) THE SECURING AND DISTRIBUTING OF COMPARATIVELY NEW OR LITTLE KNOWN VARIETIES OF FIELD AND FORAGE PLANT SEEDS AND THE IMPROVEMENT OF SAME BY BREEDING.

Under this head I may briefly refer to a class of work which I consider of great importance in the building up of agricultural industries in this country. As you know, special attention has been given during the last four or five years to the securing and distributing throughout the South of new and promising varieties of cotton. Oftentimes these cottons are secured from individual planters who have for a number of years been carefully selecting, and thus have bred a type somewhat better than is ordinarily found among growers. Our cotton experts and breeders have been on the lookout for all of these new and promising improvements, and every year we have sent out quantities of them for trial. In addition to this our men are, by their own work, securing desirable new types which are distributed as fast as developed. This is necessarily slow and costly work, but unquestionably is having a very important effect on the agricultural conditions of the South. We have many hundreds of reports from the new and improved cotton seeds that we have sent out, all showing their increased value over the ordinary kinds.

What has been said of cotton is also true of other crops, such as improved cowpeas—varieties that will resist wilt—improved melons, and improved forage crops. A special effort is being made in this direction in the matter of improving the forage crop conditions in all parts of the country, and our records will show, I think, that this work alone pays many times over the total amount appropriated for seeds and plants. As a special feature of this work may be mentioned the tobacco investigations which have been carried on from year to year, and which have had for their object the development of new types which will enable the growers of different sections to place upon the market the very highest class product. Work in Connecticut, Florida, and some of the other States has demonstrated the great value of these investigations, and this year for the first time the Department is in position to send out seeds of the specially bred types, the result of our investigations for the last three or four years.

(C) THE INTRODUCTION AND DISSEMINATION OF NEW AND PROMISING SEEDS AND PLANTS FROM FOREIGN COUNTRIES.

This work, conducted as a part of the general seed and plant investigations, is one of the most important branches of the Department. In the last five years a number of new things have been brought in and established as distinct industries. Among them may be mentioned the macaroni wheat, which was first introduced five or six years ago. The annual yield of this crop is now from 20,000,000 to 25,000,000 bushels, valued at from ten to fifteen million dollars. Another important introduction has been the Swedish oat, which has resulted in great improvement in the grain-growing conditions in the Northwest, one State, namely, Minnesota, estimating the value of this crop at over \$4,500,000. Other important crops introduced and established are new alfalfas, Japanese matting grass, date palms, etc. We import every year about \$5,000,000 worth of matting for floor covering, and of this amount \$2,000,000 practically represents the value of the raw material. This matting can be manufactured in the United States, and the rice lands of South Carolina, Texas, and Louisiana are well adapted to the cultivation of the grass. We have established gardens in South Carolina for the culture of this crop, and confidently anticipate that in a few years we will add this as one of the new industries of the South.

The whole work of the introduction of new varieties, whether found in the United States or imported from abroad, is so nearly connected that the distinction is really an arbitrary one. For the purpose of administrative economy the two are handled together, the seeds and plants received from foreign explorations being in most cases tested and introduced together with those developed in the United States. To carry on all of this work intelligently and to the best interests of the Department we have found it necessary to establish a number of testing gardens, through which we are trying to determine the crops best adapted to certain regions of the country. Thus we have a testing garden at Chico, Cal., where we are testing and distributing plants adapted to the temperate parts of the United States. Here are being tested and distributed new fruits for the Pacific coast, new forage crops for the drier regions of the United States, new cereals for different sections of the country, and various new crops particularly adapted to the northwest regions. At Amarillo, Tex., we have another station, where we are testing drought-resistant crops especially. These

include the newer durum wheats, sorghums, Kaffir corns, and crops of this nature. At San Antonio, Tex., we have another station, where we are testing crops for the semiarid region. We have a grain-testing station at McPherson, Kans., where new wheats and other grains are being tested.

All of this work is being paid for out of the general appropriation for seeds and plants. I consider the work under the two last heads, namely, the securing and distributing of new or little-known varieties of field, forage, and other seeds, plants, etc., found in this country, and the securing and distribution of seeds and plants, etc., from foreign countries of the utmost importance to American agriculture. I believe that the total amount now authorized for the entire work could very well be devoted to these problems.

I trust I have answered your inquiries fully, and for further and more detailed information would respectfully refer you to my executive report made to the honorable Secretary in 1905, in which is set forth in detail the various lines of investigation and in general in what manner the work is being applied in a practical way to the agricultural development of the country.

Very respectfully,

B. T. GALLOWAY, *Chief of Bureau.*

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D. C., March 15, 1906.

Hon. J. A. TAWNEY.

House of Representatives, Washington, D. C.

SIR: I have the honor to acknowledge the receipt of your favor of recent date requesting information in regard to the amount expended for seeds and plants and the amounts expended for salaries and other expenses connected with this work.

The lump appropriation for the purchase and distribution of seeds and plants for the current fiscal year is \$242,920. In the Book of Estimates of Appropriations for 1907, page 95, you will find a complete list of all salaries paid out of the lump fund, this data being completed up to September of the present fiscal year, when the estimates were prepared. I may say in this connection that every year we submit with our estimates a complete list of all salaries paid from lump sums, together with a full statement covering all appointments, promotions, and other changes made. This is done primarily and fundamentally for the reason that I desire to have the Committee on Agriculture thoroughly understand the innermost workings of the Department, especially in all matters pertaining to the payment of salaries where the same are not fixed by statute. You will understand that in work such as this Department is doing it is absolutely essential that the administrative head be given some leeway in the matter of paying the salaries of scientists. For the most part, these men are underpaid, and there is a great demand for their services outside. The Committee on Agriculture, I think, fully understands this matter and, in the light of the knowledge they have gained, have given me authority to exercise my judgment in meritorious cases, providing that in all such instances a full record is kept and reported to the committee each year.

In order that you may more intelligently understand the manner in which the seed work is handled, I may say that it naturally falls within three principal groups, namely:

(1) The securing, handling, and distributing of miscellaneous garden and flower seeds, grapevines, strawberry plants, ornamentals, etc.

(2) The securing and distributing of comparatively new or little-known kinds of various field and forage crop seeds, such as cotton, corn, alfalfa, etc.; the improvement of the same by breeding and selection and the general up-building of agricultural industries through such work.

(3) The introduction and dissemination of new and promising seeds and plants from foreign countries and the building up of new industries as the result of the work.

For purposes of economy, these three separate lines of work are handled, administratively, practically as one, and it is therefore difficult to draw hard and fast lines between them in the matter of expenses.

(1) *The securing, handling, and distributing of miscellaneous garden and flower seeds, etc.*—It will be seen from the tables accompanying this letter that

this work costs \$132,754.73, or approximately 55 per cent of the total amount appropriated. There is expended for seeds \$79,377.17, and for the packing, mailing, and general handling of the same, \$45,732.23, and for salaries \$7,615.33. The salaries for this part of the work constitute 5.7 per cent of the whole.

In this connection I would like to emphasize a very important point, namely, that in order to keep thoroughly abreast of the times in securing the very best seeds high-grade scientific men are essential and necessary.

We have established a number of testing stations where not only all of the miscellaneous varieties of seeds sent out are thoroughly tested to determine their trueness to type, but everything promising that is offered by seedsmen is also tested with a view to making use of it in future distributions. The Department has adopted a rigid system of testing the vitality and purity of the seeds. A special laboratory is devoted to this purpose, and this phase of the investigation constitutes a legitimate expense connected with the general work of seed distribution.

In my former letter I commented on the value of this miscellaneous distribution of garden and flower seeds, calling attention to the fact that it was difficult to state what such value might be. I also emphasized the fact that in my judgment the money thus expended could be put to better use in line with the class of work described under group 2. So long as the Department is required to do the work, however, it has been our effort to secure the very best seeds available, and to see that they were thoroughly tested and true to type, in order that their distribution might in a gradual cumulative way, encourage people throughout the country to demand the highest grade of seeds.

(2) *The securing and distributing of comparatively new or little-known kinds of various field and forage crop seeds and the improvement of same by breeding.*—This work is a legitimate part of the Congressional distribution, and to it we devote approximately \$72,385.27. All over this country there are to be found valuable forage crops, grains, fiber, and other plants which have been developed by private individuals and which are worthy of wider dissemination and trial. The Department has been making a special effort with such plants during the past four or five years, and has distributed many promising varieties. In order to determine the value of these plants and to act with judgment in their distribution and handling, the very best type of expert is required. These plants and seeds must first be discovered, thoroughly tested for some time, and then grown in considerable quantities for distribution. In this work we call in the assistance not only of the experts of this Department but experts of the State experiment stations as well.

Another important line of investigation in connection with this work is the development of new crops by breeding and selection. I consider this work requires the very highest type of agricultural skill, and it is accomplishing great good for the country. Many varieties of cotton of great value have been developed and distributed, and others are coming on from time to time as the work progresses. As a special feature of this kind of work, I might mention our efforts in the matter of encouraging the production of sugar-beet seed in this country. As you probably know, our sugar-beet growers have, ever since the industry was established here, been dependent on foreign countries for their seed. We do not always get the best seed, and for this reason the sugar content and tonnage of the beet crop has not developed as rapidly as might have been the case under other circumstances. We are now actively engaged in the growing of sugar-beet seed at a number of points in this country, doing the work in cooperation with careful growers and having our expert breeders on the ground to see that the sugar content and other desirable qualities of the beet are maintained. The seed so produced is tested by the sugar-beet factories, and the best types are distributed among individual growers, largely through Congressional requests. You will understand, I think, the necessity for having the very highest grade of service in this sort of work.

From the table you will see that we are spending annually for this work and for the work set forth under group 1 a total of \$205,140, of which \$33,643.17, or 16 per cent, is spent for salaries. This leaves \$171,496.83, or 84 per cent of the total, as the net amount to be expended for seeds, testing, and distributing them as outlined above.

(3) *The introduction and dissemination of new and promising seeds and plants from foreign countries.*—As a special feature of the seed and plant work, the introduction of new crops from foreign countries constitutes a most important line. The Committee on Agriculture in the House has from year to year gradually increased the amount authorized for this purpose until it now

aggregates \$37,780. At the same time that this increase has been made for work of this kind, the money spent for the ordinary garden and flower seed has been kept at practically the same figure by improved methods of handling the ordinary Congressional seeds and through the fact that the Department does all the work itself at a considerable saving over the old practice of letting it out entirely by contract. This saving, ranging in amount from \$15,000 to \$20,000 a year, depending upon the scarcity of the ordinary seeds, has been used in the development of lines of investigation under group 2 and also for foreign seed introduction work.

To intelligently handle the introduction of plants and seeds from foreign countries it requires first of all a corps of thoroughly trained agricultural explorers. These men must understand the conditions and needs in this country and be able to use such knowledge to advantage when studying crops in foreign countries. By the intelligent application of this general policy we have during the last six or eight years introduced a number of crops which are adding considerably to the wealth of the country.

Perhaps the most striking example of this is to be found in the introduction of durum or macaroni wheats. One of our explorers spent considerable time in Russia studying the conditions and the varieties of cereals grown there. He found several types of durum or hard wheats which would grow in regions of little rainfall. Five years ago the first introduction of these wheats was made, and now the annual production is from 20,000,000 to 25,000,000 bushels, having a value of from \$10,000,000 to \$15,000,000. Another important introduction along this same line has been in connection with the introduction of new types of rice for the Southern States. This work was taken up six or eight years ago at a time when the industry was at a comparatively low ebb owing to the fact that the rices grown in the South were too soft. An expert explorer was sent to Japan, China, and India, and other rice-growing countries, bringing back types of rice suitable to the conditions in the South, and a great impetus to the industry resulted.

We are introducing, testing, and disseminating cereals for various parts of the United States, forage crops for the dry and semiarid regions, forage crops for alkali soils, grasses and other crops for the South, fruits of various kinds for all parts of the country, and many special crops which have promise of developing new industries. One of these is the Japanese matting grass, which we are now growing in a number of the Southern States and which gives promise of being successful. We import about \$5,000,000 worth of matting and practically all of this could be made in this country and sold at a profit if the growing of the Japanese grass can be made successful.

To properly handle such subjects we have a number of testing stations where crops when first brought in are grown for a time, and if found valuable are propagated extensively and distributed. The men in charge of these stations must be experts, and must be thoroughly familiar with the propagation of plants and the necessary requirements for making such plants successful in other regions.

This statement in reference to the manner in which the work is handled seems desirable and necessary, in order that a better understanding may be had of the accompanying summarized table of expenditures.

Very respectfully,

JAMES WILSON, *Secretary.*

Memorandum of expenditures from the appropriation for the purchase and distribution of valuable seeds, 1906, as shown by financial statements, to March 12, and estimates to June 30, 1906.

(1) THE SECURING, HANDLING, AND DISTRIBUTION OF MISCELLANEOUS GARDEN AND FLOWER SEEDS, ETC.

Cost of seed:

Congressional vegetable and flower seed only-----	\$63, 072. 67
Other seeds and plants entering into regular quotas, such as cotton, tobacco, lawn grass, etc-----	6, 915. 00
Seeds and orange trees not in regular quotas, but purchased for distribution through Congressmen-----	3, 685. 00
Plants, chiefly ornamental, not in regular quotas, but to be distributed through Congressmen-----	5, 704. 50
	<hr/> \$79, 377. 17

Contract for all work connected with the packeting and mailing of 35,815,000 packets of miscellaneous vegetable and flower seed, including making the packets, printing and filling the same, putting on franks, assembling and filling packages with packets, at contract price of \$1 per 1,000 packets.....	\$36,000.00
Salaries of superintendent, bookkeepers, and frank counters.....	7,045.33
Trial grounds to test and determine the quality of seeds.....	2,540.00
Miscellaneous, including freight on all seeds, rent, gas and electric lighting, fuel, etc.....	7,192.23
Total.....	132,754.73

(2) THE SECURING AND DISTRIBUTING OF COMPARATIVELY NEW OR LITTLE-KNOWN KINDS OF VARIOUS FIELD AND FORAGE CROP SEEDS AND THE IMPROVEMENT OF SAME BY BREEDING.

Purchase of seeds, expense of experimental work, including travel for inspection and supervision.....	18,450.33
Maintenance of propagating houses, trial grounds, cooperative work with State experiment stations and private growers throughout the country in establishing new plant industries, and necessary expenses connected therewith of a miscellaneous character.....	11,049.00
Salaries:	
Botanist in charge of entire seed work and assistants.....	\$9,272.17
Experiments and laborers required in connection with seeds and plants for experimental work.....	8,419.67
Experts and gardeners for propagating work, trial grounds, and cooperative investigations.....	8,306.00
	25,997.84
Miscellaneous, including fuel, gas and electric lighting, stationery, and general office expenses.....	10,394.33
Balance, not allotted to date, but will probably be required to meet unforeseen expenses before the end of the fiscal year.....	6,493.77
Total.....	72,385.27
Total (1) and (2), domestic seed work.....	205,140.00

(3) THE INTRODUCTION AND DISSEMINATION OF NEW AND PROMISING SEEDS AND PLANTS FROM FOREIGN COUNTRIES.

Purchase of seeds and plants in foreign countries, including travel expenses of explorers and special agents in connection therewith.....	16,312.31
Salaries of explorers, experts, special agents, clerks, and laborers in connection with foreign introductions.....	13,049.00
Preliminary tests of foreign introductions in cooperation with State experiment stations and private growers.....	3,176.00
Miscellaneous, including telegraph, express, storage, packing, etc.....	1,000.00
Balance not yet specifically allotted, but which will probably be required for unforeseen expenses.....	4,242.69
Total foreign seed introductions.....	37,780.00
Total appropriation for seed and plant introduction and distribution.....	242,920.00

Summary of principal items of expense.

	Amount.	Per cent of total.
Cost of seeds and plants, including freight.....	\$118,767.16	48.8
Packeting, assembling, and mailing under contract.....	36,000.00	14.8
Salaries: Botanist in charge, explorers, experts, special agents, clerks, gardeners, laborers, messengers, etc.....	46,692.17	19.2
Testing, trial grounds, cooperative tests of new plants with experiment stations and private growers, including travel expenses.....	16,765.00	6.9
Miscellaneous, including telegraph, telephone, fuel, gas and electric lighting, stationery, and general office expenses.....	13,959.21	5.8
Balance yet to be allotted.....	10,736.46	4.5
Total.....	212,920.00	100

From the foregoing it will be seen that approximately 49 per cent of the total appropriation is actually expended for the purchase of seeds, 15 per cent for packeting and mailing, 19 per cent for salaries, 7 per cent for testing and trial work, and 6 per cent for miscellaneous and office expenses, leaving a balance of 4 per cent for emergencies. The combined cost of all salaries, miscellaneous and general office expenses, including telegraph, amounts to \$60,651.88, or approximately 25 per cent of the total, leaving \$182,268.12, or 75 per cent of the entire appropriation, as the net amount to be expended for the purchase of seeds, testing, and distribution.

In addition to the foregoing attention should be called to the appropriation for salaries on the statutory roll of the Bureau of Plant Industry (Estimates of Appropriations, 1907, p. 87). The entire appropriation under this item is \$162,480, of which \$42,040, or approximately 25 per cent, is chargeable to the seed work. These salaries were formerly paid from the lump fund, but last year the Committee on Agriculture decided to make them statutory. Following is a list of all these clerks, together with their salaries and the line of work to which they are directly chargeable.

Number and designation.	Rate.	Amount.
(1) The securing, handling, and distribution of miscellaneous garden and flower seeds, etc.:		
2 clerks, class 4.....	\$1,800	\$3,600
1 clerk, class 3.....	1,600	1,600
1 clerk, class 2.....	1,400	1,400
2 clerks, class 1.....	1,200	2,400
3 clerks.....	1,000	3,000
1 clerk.....	840	840
5 clerks.....	720	3,600
1 clerk.....	600	600
1 plant packer.....	660	660
1 skilled laborer.....	660	660
2 messengers.....	480	960
Total.....		19,320
(2) The securing and distributing of comparatively new or little-known kinds of various field and forage crop seeds and the improvement of same by breeding:		
1 clerk, class 2.....	1,400	1,400
3 clerks, class 1.....	1,200	3,600
2 clerks.....	1,000	2,000
1 clerk.....	900	900
3 clerks.....	840	2,520
5 clerks.....	720	3,600
1 clerk.....	600	600
1 gardener.....	900	900
Do.....	600	600
1 skilled laborer.....	660	660
4 skilled laborers.....	600	2,400
1 messenger boy.....	360	360
Total.....		19,540
(3) The introduction and dissemination of new and promising seeds and plants from foreign countries:		
1 clerk, class 1.....	1,200	1,200
1 clerk.....	720	720
1 gardener.....	660	660
1 skilled laborer.....	600	600
Total.....		3,180
Total statutory salaries connected with seed work.....		42,040

From the foregoing it appears that the total cost of the seed work, including the regular appropriation and the amount expended for statutory salaries, is \$284,960, or \$5,040 less than the amount appropriated for the same purpose last year. The combined lump fund and statutory salaries this year amount to \$88,732.17, or approximately 31 per cent of the entire cost of the seed work.

The CHAIRMAN. If the committee will wait for a few minutes we will decide whether we can hear Doctor Galloway, so that it can go in the record. It ought to be to-morrow or next day.

Mr. SMITH. May I make a remark about the requests that are made for these seeds? The matter has been called to my attention by a member of the committee. As I understand it, this committee handles the agricultural appropriation bill and makes this appropriation for the benefit of the farmer. That is the class that is supposed to get the benefit, and not the mechanics, mill workers, or school children, or anybody else but the farmer; at least ostensibly. Last year Mr. Gaines presented a list of some farmers from his district who had written to him for these seeds. I took the trouble to analyze that list. All but one of the letters that were presented last year, at least that I saw in the House debates, were presented by Mr. Gaines.

Here are some of the farmers Mr. Gaines produces—

Mr. HASKINS. You mean John Wesley Gaines? We have two gentlemen of that name.

Mr. SMITH. Of course, it is understood that I mean John Wesley Gaines. Mr. Gaines is a very good friend of mine, but we differ on this. Here are some of the farmers demanding free seeds from Mr. Gaines [quoting]:

"L. X. Nance, chief operator N. C. and L. R. R. Mr. Nance submits the names of six other farmers, who prove to be Mrs. A. J. Nance, Mrs. L. M. Nance, Mrs. W. P. Dans, Mrs. E. M. Davis, and Mrs. M. D. Nance, all of them residents of towns. Apparently Farmer Nance was looking out for the family—and permit me to call your attention to a highly significant line in his letter. 'Remember me,' says Farmer Nance, 'as your supporter and admirer.' Doubtless the family secured their seeds.

"Another 'farmer' is Miss Fanny Battle, secretary of the Union Charities, of Nashville; another, Miss Mary Woods, secretary of the Centennial Club, of Nashville; another is W. M. Green, of Nashville, who says his 'little granddaughter'—presumably also a 'farmer'—wants some seeds. Miss Hulda Lyle, of Hackberry, Tenn., is still another."

I am quoting from my statement before the Senate committee last session.

"But a 'peach' comes in from John D. Parks, of Port Royal. 'I have lots of friends,' says Farmer Parks, 'who have fed me through our great tobacco fight, and that is one of the main reasons I am so anxious about getting a big lot of seed of all kinds for them.' Mr. Chairman, is it exactly a 'square deal' that the Government should be called upon to pay Farmer Parks's board bill in seeds?"

I do not think so.

"But listen. Parks wrote again, and he puts up an awful howl. He had received his quota, but it was not enough. 'I did not have half to give near all those who had been feeding me and my faithful little horse'—you see he rings in a feed bill for his horse this time—

'through our great tobacco fight so long. And now I am bothered no little, for those who have been so faithful to me'—'to me,' mark you—to be expecting something from me and not be able to furnish them.' Apparently the idea of buying the seeds himself did not occur to Parks."

And finally he says:

"When I noticed 38,000,000 packages of seeds would be subject to the order of Representatives for distribution to begin in December,' continues Farmer Parks, 'I felt encouraged to feel like I would make lots of my good lady friends feel like I was trying to help them, and especially show in efforts and actions I had appreciated what they had done for me.'"

Farmer H. C. Singleton, of Nashville; a Mrs. Morris, a Miss Brown, a Mrs. J. W. Hagerwood; Professor Daniel, of Vanderbilt University; Mrs. Castleman; a Mr. Beaumont, whose wife "wishes to have a good garden," and many other ladies and gentlemen complete the list of "farmers."

There is one more letter that Mr. Gaines presented. It is from Mrs. W. F. Jones, of Antioch, Tenn. She says:

I got your free seed last year and they did mighty well, and I thank you for them. and if you have any beet seed to give away I would be thankful if you would send me a paper of the blood-turnip beet seed. I haven't got any and can't get any; and if you have them, send a paper of four-o'clock seed. I am a poor old woman, and have one arm broken, and can't work to buy any seed. Send the seed, if you please, and oblige a friend. If you send the seed, direct this way: Mrs. W. F. Jones, Antioch, Tenn., R. F. D. No. 16, and oblige a friend, Mrs. W. F. Jones; and if you have them to give away please send them as soon as you can.

What happened to that poor woman's request? Mr. Parks apparently got a lot of seed, because he speaks of having had a lot, but not half enough to go around and pay for his horse's feed bill. So he writes and gets another lot. So this poor old woman, that had one arm broken, writes to the Congressman, and what did she get? He writes back and says:

I have done the best I can to get you these seeds, but unfortunately my quota of seeds is exhausted and I can not send what you ask.

Mr. LAMB. That is very frequently the case. I have 12,000, and 60,000 people to send them to.

Mr. SMITH. The old lady did not get any. The seeds had gone to feed Farmer Parks and his faithful little horse.

Mr. LAMB. You can not laugh a case out of court.

Mr. CANDLER. Have you Mr. Gaines's letter in reply to Mrs. Jones?

Mr. SMITH. Not in this book. I thought I had it.

Mr. CANDLER. Will you incorporate it at this point?

Mr. SMITH. Certainly, sir.

Reply of Hon. J. W. Gaines to Mrs. Jones's letter quoted above.

MARCH 10, 1906.

MRS. W. F. JONES,
R. F. D. No. 16, Antioch, Tenn.

DEAR MADAM: Your letter of recent date to hand, and I regret to say that I am entirely out of both garden and flower seed. I have, however, written to the Department of Agriculture requesting them if possible to send you some seed, which I sincerely trust they can do.

Am sorry your letter did not reach me before all of mine were mailed out.

With best wishes, I am, yours, very respectfully,

JOHN W. GAINES.

Mr. SMITH. In this connection permit me to say that when I called the attention of the seed dealers to Mrs. Jones's request they arranged to send her all the seed she could use. Mr. Bolgiano had charge of the matter and can corroborate me.

Mr. BOLGIANO. Yes; we sent her the seed she wanted, and stand ready to respond to all such requests.

Mr. SMITH. I might add that I especially invited my friend, Mr. Gaines, to be present at these hearings and discuss the matter with us, but he is not in the best of health, I regret to say.

Mr. CANDLER. How many letters did you say he received, 153?

Mr. SMITH. No, sir. I said that of all the letters that were presented by the 153 Members of Congress voting for this appropriation from farmers, I think all but one, incorporated in the record, were from Mr. Gaines.

Mr. CANDLER. Mr. Mann, of Illinois, brought into the House and laid on his desk, I have heard some say, 8,000 requests. I do not know whether that was true or not, but as big a package as that [indicating].

Mr. SMITH. It has been stated that Mr. Mann wrote to every man in his district and suggested to them to write a letter to him asking for the free seed so that he could exhibit them on the floor of the House. I do not know how true this is, except it has been stated in the press and Mr. Mann has not denied it as far as I know.

Mr. CANDLER. I do not know how he got them.

Mr. SMITH. He was attacked in the Chicago papers for that. A copy of the letter was sent out broadcast throughout the district to every man, woman, and child, according to this article. It has never been denied. I do not think he denied it.

Mr. CROMER. He lives in a great farming community, too.

Mr. SMITH. In the heart of Chicago.

The CHAIRMAN. I think we have heard enough. The hearing is closed.

Mr. HASKINS. From those letters that you read do you deduce that the interests of the farmers of the country have been advanced at all?

Mr. SMITH. I have never heard a word from a farmer of any kind—

Mr. HASKINS. I mean those letters you read there from old ladies. Are the farmers being benefited by that?

Mr. SMITH. No, sir; on the contrary, they say it means nothing to them.

The committee (at 1.15 o'clock p. m.) went into executive session and subsequently adjourned.

EXHIBIT A.

[Extract from hearing before Senate Committee on Agriculture.]

AGRICULTURAL COLLEGES.

Statement of Dr. H. C. White, of the University of Georgia.

Doctor WHITE. Of course, I think my individual judgment was made up long years ago that the Government might put that money to much better use than in the distribution of the seeds. Now, I try to maintain that as an individual opinion.

Senator PERKINS. It is based upon your observation and your connection with the work with which you are engaged and intercourse with the farmers of the country?

Doctor WHITE. This is rather a delicate matter, but I believe if you take the intelligent farmers of the State they are almost unanimously either in opposition to the free distribution of seeds, or certainly they would not advocate it. Now, if I were to make that statement publicly it might stand as a reflection upon the intelligence of a great many farmers, and I would not like to do that. There are a great many men who can not be called unintelligent and who yet hear nothing one way or the other on this subject. I do not doubt that there are a great many people who work small farms, and all that sort of thing, who would apply for free seeds if they were to be had; but if you come to the sound public intelligent opinion on the subject I am quite prepared to say that it is as strong in Georgia as it is in any other State, and that they would be glad to see the free-seed distribution done away.

EXHIBIT B.

Varieties of seed distributed, 1906 (Department of Agriculture list), together with dates of introduction as shown by seed catalogues.

Seed.	Kind.	Variety.	When introduced.
Beans	Dwarf	Refuge Wax	Prior to 1893.
Do	do	Extra Early Refuge	Prior to 1890.
Do	do	Extra Early Valentine	Prior to 1898.
Do	do	Extra Early Red Valentine	Prior to 1890.
Do	do	Bountiful	1899.
Do	Pole	White Creaseback	1886.
Do	do	Kentucky Wonder	1884.
Beet		Bastian's	Prior to 1890.
Do		Columbia	1892.
Do		Eclipse	Prior to 1886.
Do		Edmand's Early	1887.
Do		Edmand's Turnip	1887.
Do		Bassano	1880.
Do		Early Blood Turnip	1880.
Do		Crosby's Egyptian	1896.
Do		Long Smoot (dark) Blood	1880.
Do		Detroit	Prior to 1898.
Do		Dewing's	Prior to 1880.
Do		Early Arlington	Prior to 1891.
Cabbage		Early Jersey Wakefield	Prior to 1879.
Do		Flat Dutch	Do.
Carrot		Danvers	1881.
Do		Chantenay	1888.
Do		Oxheart	1884.
Do		Early Scarlet Horn	Prior to 1870.
Do		Improved Long Orange	Prior to 1868.
Collards		Georgia	Prior to 1879.
Corn		Crosby's Early	Do.

Varieties of seed distributed, 1906 (Department of Agriculture list), together with dates of introduction as shown by seed catalogues—Continued.

Seed.	Kind.	Variety.	When introduced.
Corn		Zigzag Evergreen	
Do		Stowell's Evergreen	About 1860.
Do		Hickox Improved	Prior to 1880.
Do		Old Colony	Prior to 1885.
Do		Early Evergreen	Prior to 1879.
Do		Extra Early Minnesota	Do.
Do		Moore's Concord	1882.
Do		Kendal's Giant Early	1899.
Do		Champion Early	Prior to 1899.
Do		Shaker's Early	Prior to 1886.
Cucumber		Cumberland	1902.
Do		Extra Early Russian	1880.
Do		Green Prolific	1880.
Do		Arlington White Spine	1880.
Endive		White Curled	1880.
Do		Moss Curled	1880.
Do		Broad-leaved Batavia	1880.
Kale		Triple Curled	
Do		Dwarf Green Curled	Prior to 1860.
Do		Moss Curled	About 1880.
Do		Dwarf Curled Siberian	Prior to 1860.
Lettuce		Grand Rapids	1891.
Do		Prize Head	1881.
Do		Big Boston	1890.
Do		Passion	About 1870.
Do		Deacon	1879.
Do		Denver Market	1870.
Do		Philadelphia Butter	1892.
Do		California Cream Butter	1888.
Do		American Gathering	About 1870.
Do		Tilton's White Star	1889.
Do		All Seasons	1897.
Do		Chartier	About 1891.
Muskmelon		Paul Rose	1899.
Do		Emerald Gem	1886.
Do		Defender	1902.
Do		Bay View	1880.
Do		Rockford	1881.
Mustard		Ostrich Plume	1898.
Do		Fordhook Fancy	1901.
Okra		New Dwarf Green	1880.
Do		New White Velvet	1887.
Do		Perkins's Long Podded	1901.
		Moss Curled	1881.
		Double Curled	1881.
Parsley		Champion Moss Curled	1881.
		Extra Dwarf Curled	1898.
Parsnip		Guernsey	Prior to 1868.
Do		Hollow Crown	Prior to 1860.
Do		Long Smooth	1880.
Peas		Horsford's Market Garden	Prior to 1888.
Do		Advancer	Prior to 1868.
Do		Champion of England	Do.
Do		Admiral	1891.
Do		Extra Early	1880.
Do		Abundance	1884.
Do		Everbearing	1884.
Do		Dwarf Champion	1904.
Do		First and Best	Prior to 1868.
Radish		Half Long Scarlet	1888.
Do		Cincinnati Market	1896.
Do		French Breakfast	Prior to 1870.
Do		Vick's Scarlet Globe	1908.
Do		Chartier	Prior to 1886.
Do		Scarlet Globe	About 1896.
Do		Early Scarlet Turnip	Prior to 1870.
Do		Long Scarlet Short Top	Do.
Do		Wood's Early Frame	Do.
Do		Iceicle	1900.
Do		Scarlet Olive Shaped	Prior to 1870.
Do		Extra Early Scarlet Turnip	1885.
Do		Long Scarlet	Prior to 1870.
Squash		Early White Bush Scarlet	Prior to 1878.
Do		Mammoth White Bush Scallop	1889.
Do		Early Yellow Sum Crookneck	Prior to 1878.
Do		Golden Custard	1889.
Do		Early Yellow Bush Scallop	Prior to 1878
Do		Dreer's White Bush	1900.
Do		Yellow Bush	1881.
Tomato		Stone	1892.

¶ Different strains of the same variety offered by the trade at least forty years.

Varieties of seed distributed, 1906 (Department of Agriculture list), together with dates of introduction as shown by seed catalogues—Continued.

Seed.	Kind.	Variety.	When introduced.
Tomato.....		Perfection.....	1881.
Do.....		Favorite.....	1883.
Do.....		Matchless.....	1889.
Do.....		Early Michigan.....	About 1895.
Turnip.....		Early Flat Dutch.....	Prior to 1868.
Do.....		Purple Top White Globe.....	Prior to 1890.
Watermelon.....		Phinney's Early.....	1880.
Do.....		Dark Icing.....	1881.
Do.....		Harris's Earliest.....	1900.
Do.....		Mountain Sweet.....	1880.
Do.....		Mammoth Ironclad.....	1884.
Do.....		Kolb's Gem.....	Prior to 1885.
Do.....		Jordan's Gray Monarch.....	1888.
Do.....		Fordhook Early.....	1890.
Do.....		Arkansas Traveler.....	About 1892.
Do.....		Iceberg.....	1902.
Do.....		Pride of Georgia.....	1886.
Do.....		Peerless.....	1880.
Do.....		Sweetheart.....	1895.
Do.....		1,000 Pound Dixies.....	1892.

EXHIBIT C.

Tabulation of the resolutions, letters, editorials, and other matter containing the present method of distributing free seeds, presented to the House Committee on Agriculture Thursday, December 13, arranged by States.

ALABAMA.

Letters:

R. S. Mackintosh, State horticulturist.
E. Mead Wilcox, botanist agricultural experiment station.
J. F. Duggar, director Alabama Polytechnic Institute.
Editor the Dixie Home.

Editorials and news items:

Montgomery Journal.
Mobile Register.
Montgomery Advertiser.
Montgomery Times.
Birmingham Ledger.
Opelika News.
Birmingham News.

ARKANSAS.

Letters:

Ernest Walker, horticulturist experiment station.

Editorial and news items:

Arkansas Democrat.

CALIFORNIA.

Resolutions:

Santa Barbara Horticultural Society.
State Horticultural Society.

Letters:

Emily L. Burnham, secretary State Grange.
J. W. Webb, lecturer State Grange.
G. N. Whitaker, secretary board of horticultural commission Sonoma County.
E. W. Nilgard, agricultural experiment station.
John Isaac, secretary State commissioners horticulture.
E. J. Wilkinson, Berkley (inclosing resolutions State Horticultural Society).

Letters:

Editor Rural Californian (M. G. Helntz).
Editor the California Fruit Grower (H. C. Rowley).
Editor Town and Country Journal (W. G. Bonham).

Editorial and news items:

California Fruit Grower, San Francisco.
 Pacific Fruit World, San Francisco.
 Poultry Journal, Petaluma.
 Cooperative Journal, Oakland.
 Oakland Herald.
 Eureka Daily Standard.
 Los Angeles Herald.
 San Francisco Call.
 San Francisco Chronicle.
 Cloverdale Revielle.
 Fresno Republican.
 Los Angeles Times.
 San Jose Mercury.
 Riverside Enterprise.
 Stockton Independent.
 Los Angeles News.
 San Francisco Bulletin.

COLORADO.**Letters:**

C. P. Gillette, professor State Agricultural College.
 William P. Headden, State Agricultural College.
 W. H. Olin.
 H. S. Groves, editor Ranch and Range.
 Editor The Field and Farm.

Editorial and news items:

Leadville Herald-Democrat.
 Colorado Springs Gazette.
 Pueblo Star-Journal.
 Telluride Journal.
 Denver Times.
 Colorado Springs Telegraph.
 Irrigation, Denver.

CONNECTICUT.**Resolutions:**

East Lyme Grange, No. 157.
 Rippowam Grange, No. 145.
 Local Grange 153, Bridgewater.
 Ellington Grange, Ellington.

Letters:

Farmer Printing and Publishing Company, New Haven.
 James F. Brown, secretary State board of agriculture.
 Publishers Connecticut Farmer, New Haven.
 C. M. Gallup, Brooklyn (Farmer).

Editorials and news items:

The Farmer, Bridgeport.
 Meriden Record.
 Ansonia Sentinel.
 Hartford Courant.
 Hartford Courier.
 New Haven Register.
 New Britain Herald.
 New Haven Palladium.
 The Day, New London.
 Union, New Haven.
 Republican, Waterbury.
 Republican, Bridgeport.
 Norwich Telegraph.
 Bridgeport Standard.
 Norwich Record.
 Hartford Times.
 Bridgeport Telegram.
 Waterbury Democrat.
 Waterbury American.
 Willimantic Chronicle.
 New Haven Leader.
 The Hour, Norwalk.

DELAWARE.

Resolutions :

Sunnyside Grange No. 7, Bridgeville.
Capital-Grange No. 18, Dover.

Letters :

Wesley Webb, secretary State Grange.
J. Harvey Whiteman, attorney, Wilmington.

GEORGIA.

Letters :

R. J. Redding, director agricultural experiment station.
Harvie Jordan, president Southern Cotton Growers' Association.
F. J. Merriam, editor Southern Ruralist, Atlanta.
J. Lawrence, editor Farmer and Stockman.
Douglas Glessner, editor Griffin News and Sun.
George Gilmore, Wartham.

Editorials and news items :

The Nut Grower, Poulan.
Augusta Herald.
Macon Telegraph.
Atlanta News.
Atlanta Constitution.
Columbus Ledger.
Savannah News.
Savannah Press.
Atlanta Journal.

Testimony Dr. H. C. White, University of Georgia, before Senate Committee on Agriculture (exhibit).

IDAHO.

Letter :

H. T. French, director agricultural experiment station.

Editorial :

Gem State Rural.

ILLINOIS.

Resolutions :

Illinois State Grange.
Union Grange, No. 811, Rockford.
Farmers' petitions, late Representative Hitt's district.

Letters :

Edmund J. James, president Illinois University.
E. Davenport, director agricultural experiment station.
T. J. Burrill, University of Illinois.
Hubert Shearer, editor Farm, Field and Fireside, Chicago.
C. P. Reynolds, editor Prairie Farmer, Chicago.
Editor Maxwell's Talisman, Chicago.
C. Ham, editor Farm Life, Chicago.
W. A. Baldwin, editor Joliet Daily News.
Daily National Live Stock Reporter.
Charles F. Mills, editor Farm Home.

Editorial and news items :

American Florist Exchange, Chicago.
Farm Life, Chicago.
Farm, Field and Fireside, Chicago.
Farmers' Review, Chicago (also letter).
Monmouth Review.
Kewanee Star-Courier.
Fruit Growers' Journal, Cobden.
Inland Farmer, Chicago.
Prairie Farmer, Chicago.
Farmers' Call, Quincy.
Flushing Journal.
Elgin Press.
Springfield State Register.
Rockford Republic.
Chicago Post.

Editorial and news items—Continued.

Calro Bulletin.
 Joliet News.
 Pontiac Leader.
 Peoria Herald-Transcript.
 Danville Press.
 Chicago Record-Herald.
 Rochelle Herald.
 Belleville Advocate.
 Chicago Tribune.
 Peoria Evening Star.
 Bloomington Pantagraph.
 Chicago Daily News.
 Quincy Journal.
 Aurora News.
 Bloomington Bulletin.
 Streator Free Press.
 Moline Review-Dispatch.
 Springfield Journal.
 Chicago Inter Ocean.
 Breeders' Gazette, Chicago.

INDIANA.

Resolutions :

State Horticultural Society.
 Rush County Farmers' Institute.
 Dubois County Farmers' Institute.
 Warrick County Farmers' Institute.

Letters :

W. C. Latta, professor agricultural experiment station.
 William E. Osborne, farmer, Lafayette.
 D. M. Litchlyder, president Dubois County Farmers' Institute.
 John E. Baker, Booneville, Warrick County Farmers' Institute.
 Rush County Farmers' Institute.
 Guide Publishing Company, Huntington.
 American Farmer Company, Indianapolis.
 Inland Poultry Journal, Indianapolis.
 Progressive Country Life, Rockville.
 Editor Crawfordsville Journal.
 W. H. Cheny, New Albany.
 H. W. Brown, New Albany.

Editorial and news items :

Arboriculture, Connersville.
 Progressive Country Life, Rockville.
 Up-to-Date Farming, Indianapolis.
 Inland Poultry Journal, Indianapolis.
 Lafayette Courier.
 South Bend Tribune.
 Hartford City News.
 Muncie Star.
 Elkhart Truth.
 Huntington Herald.
 Madison Courier.
 Agricultural Epitomist, Spencer.
 Indiana Farmer, Indianapolis.
 Fort Wayne Journal.
 Fort Wayne News.
 Evansville Courier.
 Richmond Sun-Telegram.
 Indianapolis Star.
 Terre Haute Star.
 Fort Wayne Sentinel.
 Anderson Herald.

IOWA.

Letters:

P. G. Holden, superintendent department agricultural extension, Iowa College.
 W. H. Stevenson, professor department of soils, Iowa College.
 Louis G. Michael, chemist, agricultural experiment station.
 George P. Hardwick, secretary Farmers' Ind. Union, Hancock County.
 Harry W. Law, secretary Scott County Farmers' Institute.
 W. A. Wickham, Tipton.
 D. Z. Berry, Indianola.
 G. A. Ivins, board of directors State Horticultural Society.
 Wesley Greene, secretary State Horticultural Society.
 J. F. Widman, editor McGregor News.
 C. E. Faville, Successful Farming, Des Moines.
 Kimball's Dairy Farmer, Waterloo.
 Fruitman and Gardener, Mount Vernon (telegram).
 Ralph Robinson, editor Newton Journal.
 Dunlevy Brothers, publishers Lansing Journal.
 G. Albert Lindean, editor Iowa Posten.
 G. L. Caswell, editor Denison Bulletin.
 F. W. Bicknell, editor Mail and Times, Des Moines.
 A. L. Seville, editor Cedar Falls Gazette.
 L. E. Fay, editor Clinton Advertiser.
 C. K. Kennedy, editor Atlantic Messenger.
 Elmer E. Johnston, editor Rockwell City Advocate.
 Ed. M. Smith, publisher Winterset Madisonian.
 H. R. Mosnal, editor Union, Belle Plaine.
 A. O. Lutze, Sioux City Courier.
 Earl Bronson, Spencer Herald.
 Phil. S. Kell, Spirit of the West, Des Moines.
 Christian Union, Des Moines.
 John Thompson, editor Farmers' Tribune.

Editorial and news items:

Farmers' Tribune, Sioux City.
 Farmer and Breeder, Sioux City.
 Wallace's Farmer, Des Moines (also letter).
 Belle Plaine Union.
 Waterloo Daily Courier.
 Cedar Rapids Republican.
 Waterloo Evening Times.
 Hedrick Journal.
 Iowa City Republican.
 Clinton Herald.
 Des Moines Register-Leader.
 Carroll Times.
 Mason City Times-Herald.
 Dubuque Telegraph.
 Creston Independent-American.
 Ottumwa Courier.
 Cedar Rapids Gazette.
 Muscatine Journal.
 Burlington Hawkeye.
 Council Bluffs Nonpareil.

KANSAS.

Resolutions:

Douglas County Horticultural Society, Lawrence.
 Osage County Grange, No. 442, Lyndon.
 Brooklyn Grange, Lacygne.
 Clay County Fair Association.

Letters:

A. M. Ten Eyck, professor agronomy, State Agricultural College.
 J. T. Willard, professor chemistry, State Agricultural College.
 J. W. Berry, president board of regents, State Agricultural College.
 V. M. Shoresmith, assistant professor crop production, State Agricultural College.

Letters—Continued.

B. F. Smith, fruit and plant grower, Lawrence.
 Frank C. Pomeroy, house of representatives, Holton.
 E. R. McAnlis, manager Western Breeders' Journal, Clay Center.
 E. B. Cowgill, editor Kansas Farmer, Topeka.
 H. N. Gaines, manager The Farmers' Advocate, Topeka.
 C. E. Ingalls, editor Republican Register, Washington.
 S. P. Gebhart, editor Pratt Union, Pratt.
 D. E. McCullum, editor Republican, Lincoln.
 George F. Fullenwider, editor Advocate, Eldorado.
 T. E. Leftwich, editor Winfield Tribune.
 J. E. Jenkins, editor Sterling Bulletin.
 Frank Fesler, editor Labor Record, Kansas City.

Editorials and news items:

Farmers' Advocate, Topeka.
 Kansas Farmer, Topeka.
 Wichita Beacon.
 Wichita Eagle.
 Kansas Weekly Capital.
 Lawrence World.
 Leavenworth Times.
 Lawrence Gazette.
 Topeka Herald.

KENTUCKY.**Resolutions:**

Joint convention Farmers' Institute and State Grange.

Letters:

S. P. Wolcott, master State Grange.
 Editor Inland Farmer, Louisville.
 F. F. Gilmore, editor The Southern Home, Louisville.
 Sam. J. Roberts, editor Lexington Leader.
 Heber Matthews, editor Hartford Herald.

Editorials and news items:

Farmers' Home Journal, Louisville.
 Inland Farmer, Louisville.
 Home and Farm, Louisville.
 The Leader, Lexington.
 Courier-Journal, Louisville.
 Louisville Times.
 Paducah News-Democrat.
 Louisville Herald.
 Lexington Herald.

LOUISIANA.**Letters:**

W. R. Dodson, director agricultural experiment station.
 C. W. Eichling, manager Avenue Floral Company, New Orleans.

Editorials and news items:

Rice Journal and Southern Farmer, Crowley.
 New Orleans Daily States.
 New Orleans Times-Democrat.

MAINE.**Resolutions:**

Acorn Grange, No. 418, Cushing.
 Wilson Grange, No. 321, East Wilton.
 Canton Grange, No. 110, Canton.
 Halcyon Grange, Bluehill.
 Morning Light Grange, No. 19.
 Willow Brook Grange, No. 352, Newfield.

Letters:

Obadiah Gardner, master State Grange.
 E. E. Hardy, master Wilson Grange, No. 321.
 A. L. Stevens, Halcyon Grange, Bluehill.

Editorials and news items:

Portland Advertiser.
Bangor Commercial.
Lewiston Sun.
Bath Times.
Cape Ann News, Gloucester.
Portland Press.
Rockland Star.
Lewiston Journal.

MICHIGAN.

Resolutions:

Quincy Grange, No. 152, Branch County.
Union Grange, No. 820, Oakley.
——— Grange, No. 535, Holton.
Ashbaugh Grange, No. 1202, Lake City.
Belleville Grange, No. 331, Belleville.
Lenawee County Horticultural Society, Adrian.
Fisher Grange, No. 790, Harrisville.

Letters:

Jennie Buell, secretary State Grange.
L. R. Taft, horticulturist, agricultural college experiment station.
S. W. Fletcher, professor horticulture, agricultural college.
Colton C. Little, deputy commissioner, dairy and food department.
Andrew Olander, Isanti.
Publisher The Strawberry, Three Rivers.
Publisher Bay City Tribune.
H. P. Hetherington, editor Detroit Journal.
H. G. Wanty, manager Muskegon News.
E. P. Waldron, Mount Pleasant.
C. A. Tyler, Hampshire Down Breeders' Association of America.

Editorials and news items:

National Fruit Grower, St. Joseph.
Sugar Beet Culturist, Bay City.
Sault Ste. Marie Evening News.
Owosso Press-American.
Lansing Journal.
Detroit Times.
Muskegon News.
Adrian Times.
Menominee Herald-Leader.
Jackson Patriot.
Owosso Evening Argus.
Bay City Times.
Lansing Herald.
Bay City Tribune.
Kalamazoo Telegraph.
Grand Rapids News.
Detroit News.
Traverse City Eagle.

MINNESOTA.

Letters:

S. G. Baird, master State Grange.
F. L. Washburn, State entomologist.
D. A. Gaumnitz, assistant, agricultural experiment station.
J. N. Drew, registrar, University of Minnesota.
O. C. Gregg, superintendent, Farmers' Institutes.
Publishers Northwestern Agriculturist, Minneapolis.
Publishers Farm, Stock and Home, Minneapolis.
H. Sandholt, editor Dairy Record, St. Paul.
J. Burgess, editor Minneapolis Daily News.
A. C. Weiss, publisher Duluth Evening Herald.

Editorials and news items:

Northwestern Agriculturist, Minneapolis.
Farmer, St. Paul.
Farm Students' Review, Minneapolis.

Editorials and news items —Continued.

St. Paul Pioneer-Press.
 Duluth Evening Herald.
 St. Paul Dispatch.
 Mankato Free Press.
 Minneapolis Journal.
 Minneapolis News.
 Minneapolis Tribune.
 Rochester Post-Record.

MISSOURI.**Letters :**

George B. Ellis, secretary State board of agriculture.
 Joseph F. Marsh, secretary Merimac Horticultural Society, Stoutsville.
 Emerson T. Abbott, editor Modern Farmer and Busy Bee, St. Joseph.
 Publishers Tri-State Farm Journal.
 Publishers Fruit Grower, St. Joseph.
 H. K. Taylor, editor Woman's Farm Journal and Magazine, St. Louis.
 F. L. Kelso, editor Missouri Agricultural College Farmer.
 B. M. Duggar, University of Missouri.
 H. S. Wayman, Princeton.

Editorials and news items :

Modern Farmer and Busy Bee, St. Joseph.
 The Packer, Kansas City.
 Missouri and Kansas City Farmer.
 Kansas City Journal.
 St. Joseph Gazette.
 Joplin Globe.
 St. Louis Republic.
 Joplin News-Herald.
 Kansas City Post.
 Kansas City Star.
 Sedalia Capital.
 Springfield Republican.

MISSISSIPPI.**Letters :**

Glen W. Herrick, professor of biology, agricultural college.
 E. R. Lloyd, professor agriculture, experiment station.
 A. J. Moore, secretary Agricultural and Mechanical College.
 Mason Snowden, Wilkinson County Cotton Association, Woodville.
 Charles A. McClure, Walthall.
 Charles M. Scherer, secretary Southern Farm Gazette, Starkville.
 J. N. Boone, editor Prentiss Plaindealer, Booneville.
 H. D. Willson, editor New Albany Gazette.
 James Faulk, Publisher Greene County Herald, Leakesville.
 J. O'Holcomb, Hickory Flat Banner.
 J. W. Jacobs, editor Calhoun Monitor, Pittsboro.
 W. W. Conley, manager Commercial Publisher Company, Collins.
 J. B. Mattison, The South, Holly Springs.
 (Telegram.) T. L. Bellinger, editor Jackson News.

Editorials and news items :

Southern Farm Gazette, Starkville.
 Vicksburg American.
 Meridan Star.

MONTANA.**Letters :**

Alfred Atkinson, agronomist, agricultural experiment station.
 W. J. Elliott, dairyman, agricultural experiment station.

Editorial and news items :

Great Falls Tribune.
 Great Falls Leader.
 Butte Miner.

NEBRASKA.

Letters:

R. A. Emerson, horticulturist agricultural experiment station.
 S. Avery, department chemistry, University of Nebraska.
 Val Keyser, assistant superintendent Farmers' Institute.
 W. C. Unitt, Seward.
 C. P. Sturgiss, editor Twentieth Century Farmer, Omaha.
 J. A. Davis, Bridgeport.
 Publishers Farm Magazine, Omaha.
 Proprietor Bohemian American Newspaper Union, Omaha.
 George C. Walt, Elm Creek.

Editorials and news items:

Twentieth Century Farmer, Omaha.
 Nebraska Dairyman, Lincoln.
 Lincoln Journal.
 Omaha Bee.
 Lincoln Star.
 Lincoln News.
 Fremont Tribune.

NEW HAMPSHIRE.

Resolutions:

Pinegrove Grange, Bath.
 Chester Grange, No. 169, Chester.
 Sunapee Lake Grange, No. 112, South Newbury.

Letters:

H. O. Hadley, master State Grange, Peterboro.
 J. D. Peaslee, secretary Sunapee Lake Grange, South Newbury.
 S. R. Hansoam, Erral, N. H.
 J. Earlfred Hall, master Nashua Grange, No. 13.
 E. A. Chase, editor Plymouth Record, Ashland Citizen, Plymouth.
 H. H. Sanderson, editor Lancaster Gazette.
 M. Meehan, editor Concord Patriot.

Editorials and news items:

Concord Monitor.
 Batavia News.
 Manchester Union.
 Nashua Telegraph.
 Portsmouth Chronicle.

NEW JERSEY.

Resolutions:

New Jersey State Grange.
 Thorofare Grange, Paulsboro.
 Ramsey Grange, No. 135, Ramsey.
 Olive Branch Grange, Matawan.
 Lincoln Grange, No. 136.
 Bergen County Pomona Grange.
 Upper Township Grange, No. 139, Tuckahoe.

Letters:

Albert P. Knapp, master State Grange.
 E. R. Collins, editor Jersey Farmer, Westfield.
 Franklin Dye, secretary State board of agriculture.

Editorials and news items:

Madison Eagle.
 Paterson News.
 Passaic News.
 Flemington Republican.
 Trenton Times.
 Lakewood Times and Journal.
 Camden Post-Telegram.
 Newark Advertiser.
 Trenton True American.
 Jersey City Evening Journal.
 Newark Call.
 Burlington Enterprise.
 Newark News.
 Paterson Guardian.
 Elizabeth Journal.
 Trenton State Gazette.

NEW YORK.

Resolutions :

New York State Grange.
 Huguenot Grange, No. 1028, New Platz.
 Ethan Allen Grange, No. 961, Crown Point.
 Ellington Grange, No. 528, Chautauqua County.
 Pine Bush Grange, No. 1014, Pine Bush.
 Knoxboro Grange, No. 758.
 Lindenwald Grange, No. 985, Kinderhook.
 Onondaga County Grange, Syracuse. (Also Farmers' Club.)
 Gouverneur Grange, No. 303, Gouverneur.
 Tarrytown Horticultural Society.
 New York Produce Exchange.

Letters :

W. N. Giles, secretary State Grange.
 L. B. Judson, assistant professor horticulture, State Agricultural College.
 James H. Jackson, president Jackson Sanatorium, Dansville.
 F. H. Stoneburn, editor Poultry Husbandry, Waterville.
 Publishers New York Produce Review, New York.
 Publishers New York Farmer, Port Jervis.
 John Craig, editor National Nurseryman, Ithaca.
 Manager The Garden Magazine, New York.
 Publishers Utica Press.
 Publishers Syracuse Post-Standard.

Editorials and news items :

The American Florist, New York.
 The Florists' Exchange.
 New York Farmer, Port Jervis.
 Tribune Farmer, New York.
 Tobacco Journal, New York.
 The Florists' Review, New York.
 New York Produce Review and American Creamery.
 The Country Gentleman, Albany.
 The National Nurseryman, Rochester.
 The Country World, Jamestown.
 Yonkers Herald.
 New York Commercial.
 Niagara Falls Gazette.
 Albany Press-Express.
 Brooklyn Free Press.
 New York Sun.
 New York World.
 Rochester Democrat Chronicle.
 Gloversville Leader.
 New York Tribune.
 Albany Argus.
 Elmira Advertiser.
 Long Island City Star.
 Buffalo Express.
 New York Mail.
 Lockport Journal.
 Rochester Herald.
 Rochester Post-Express.
 Utica Tribune.
 Glens Falls Times.
 Greater New York Star.
 Utica Observer.
 Newburg News.
 Brooklyn Standard Union.
 Rome Tribune.
 Nyack Star.
 Utica Press.
 Chenango Telegraph, Norwich.
 Buffalo Evening News.
 New York Herald.
 Watertown Standard.
 Troy Times.

Editorials and news items—Continued.

Jamestown Journal.
 New York Times.
 Rochester Leading Republican.
 Poughkeepsie Eagle.
 New York Journal of Commerce.
 New York Evening Post.
 Genesee Courier.
 New York American.
 Schenectady Gazette.
 Kingston Leader.
 Buffalo Enquirer.
 Brooklyn Life.
 Ithaca Journal.
 Yonkers Statesman.
 Hornellsville Times.
 Brooklyn Times.
 Watertown Times.
 Jamestown Morning Post.
 New York City Nation.
 New York City Daily People.
 Brooklyn Citizen.
 Troy Evening Standard.
 Rochester Union and Advertiser.
 Albany Times Union.
 Buffalo Illustrated Times.

NORTH CAROLINA.**Letters:**

George T. Winston, president College of Agriculture and Mechanic Arts.
 F. C. Reimer, assistant professor horticulture.
 J. C. Kendall, assistant professor dairy husbandry.
 Tait Butler, State veterinarian and director farmers' institutes.
 B. W. Kilgore, director agricultural experiment station.
 T. K. Bruner, secretary department of agriculture, Raleigh.
 James B. Dudley, president State Agriculture and Mechanical College for Colored Race.
 W. N. Hatt, State horticulturist, Raleigh.
 Joseph E. Avent, editor Scottish Chief, Moxton.
 George E. Webb, editor Southern Tobacco Journal.
 W. E. Dowd, editor Textile Excelsior, Charlotte.
 Al Fairbrother, publisher Greensboro Everything.
 P. H. St. Clair, editor Sanford Express.
 B. B. Clark, editor Statesville Landmark.
 P. H. Elkins, Siler City Grit.
 J. M. Stoner, Our Mountain Home, Asheville.
 H. P. Allison, editor Kings Mountain Herald.
 A. G. Hollerek, editor Darlington News (telegram).
 Zeb. P. Council, editor Durham Recorder.
 J. E. Smith, editor Bryson Appalachian (telegram).
 J. M. Spencer, vegetable grower, Newbern.
 J. H. Caine, Asheville Citizen.
 J. Frank Fooshe, editor Winnsboro News and Herald.
 Frank A. Hampton, editor Washington Daily Messenger (telegram).
 J. B. Burgster, editor Jamestown Daily Capital (telegram).

Editorial and news items:

The Progressive Farmer, Raleigh.
 Charlotte Evening Chronicle.
 Raleigh News and Observer.
 Raleigh Times.
 Asheville Gazette News.
 Winston-Salem Twin City Sentinel.
 Charlotte News.

OHIO.

Resolutions:

Guadenhutten Grange, No. 1486.
 Butler Grange, No. 993, Columblana County.
 Berlin Grange, No. 629, Delaware.
 Washington Grange, No. 5.
 Ohio State Grange (*see* testimony).
 Sandusky Grange.

Letters:

Charles E. Thorne, director agricultural experiment station.
 T. L. Calvert, secretary State board of agriculture.
 Editor Farm and Fireside, Springfield.
 Editor Daily News, Dayton.
 C. G. Norton, Sandusky city.
 S. J. Flickinger, editor Dayton Journal.
 G. C. Housekeeper, Marysville.
 Editor Akron Democrat.
 A. P. Sandles, president State board of agriculture.
 J. F. Wickenham, Peebles.
 C. M. Freeman, past secretary Ohio State Grange, secretary National Grange.

Editorials and news items:

American Grange Bulletin, Cincinnati.
 Ohio Farmer.
 Inland Grocer, Cleveland.
 Cincinnati Packer.
 Cleveland Plain Dealer.
 Mount Vernon Daily Banner.
 Dayton Herald.
 Warren Chronicle.
 Cincinnati Times-Star.
 East Liverpool Review.
 Cincinnati Post.
 Lima Republican Gazette.
 Findlay Republican.
 Columbus Press-Post.
 Springfield Daily News.
 Cincinnati Enquirer.
 Newark American-Tribune.
 Youngstown Vindicator.
 Elyria Chronicle.
 Canton Repository.
 Canton News.
 Columbus Journal.
 Hamilton Republican-News.
 Toledo Blade.
 Hamilton Telegraph.
 Dayton News.
 Cleveland News.
 Conneaut News.
 Cincinnati Commercial-Tribune.
 Cleveland Leader.
 Dayton Journal.

OREGON.

Resolutions:

White Clover Grange, No. 279, Tillamook.
 Natal Grange, No. 302, Mist.
 Harmony Grange, No. 23, Lebanon.
 Harding Grange, No. 122, Oregon City.

Letters:

James Wilthycombe, director agricultural experiment station.
 M. D. Wisdom, editor North Pacific Rural Spirit, Portland.

Editorials and news items:

Rural Spirit, Portland.
 Northwest Pacific Farmer.
 Salem Statesman.
 Astoria Astorian.
 Portland Oregonian.
 Portland Telegram.
 Pendleton East Oregonian.

PENNSYLVANIA.**Resolutions:**

Beaver Grange, No. 838, Conneautville.
 Spring Brook Grange, No. 1037.
 Central Grange, Towanda.
 Fairview Grange, No. 817, Farmington.
 Wyebrooke Grange, No. 1306, Barneston.
 Sylvester Grange, No. 1078.
 Corydon Grange, No. 1205.
 Fleetville Grange, No. 1199, Dalton.
 Romola Grange, No. 1192, Howard.
 Lake Grange, No. 806, Susquehanna County.
 State Horticultural Society.

Letters:

E. S. Bayard, Axtell-Rush Publishing Company, National Stockman and Farmer, Pittsburg.
 Publishers House and Garden, Philadelphia.
 Publishers Pittsburg Chronicle-Telegraph.
 George S. Oliver, manager Pittsburg Gazette.
 Publishers Philadelphia Inquirer.

Editorials and news items:

Rural Farmer, Philadelphia.
 Practical Farmer, Philadelphia.
 Pennsylvania Grange News, Chambersburg.
 Pittsburg Leader.
 McKeesport Times.
 Scranton Republican.
 Reading Times.
 Harrisburg Star-Independent.
 Pittsburg Post.
 Philadelphia Public Ledger.
 Philadelphia North American.
 Philadelphia Record.
 Doylestown Intelligencer.
 Titusville Herald.
 New Castle News.
 McKeesport News.
 Philadelphia Inquirer.
 Johnstown Democrat.
 Philadelphia Press.
 Philadelphia Record.
 Homestead News Messenger.
 Erie Dispatch.
 Wilkes-Barre Leader.
 Pittsburg Chronicle-Telegraph.
 Philadelphia Bulletin.
 Lancaster Examiner.
 Pittsburg Dispatch.
 Philadelphia Telegraph.
 Scranton Republican.
 Erie Dispatch.
 Wilkes-Barre News.
 Erie Herald.
 Pittsburg Gazette.
 Altoona Gazette.
 York Gazette.
 Chester Republican.

Editorials and news items—Continued.

Pittsburg Times.
 Scranton Times.
 Scranton Truth.
 Williamsport Sun.
 Phoenixville Republican.
 Pittsburg Press.
 Johnstown Tribune.
 Scranton Tribune.
 Greensbury Tribune.
 Wilkes-Barre Times.
 Philadelphia Saturday Evening Post.
 Washington Journal.
 Delaware County Democrat, Chester.
 Philadelphia Item.
 Meadville Star.
 The Church Standard, Philadelphia.

RHODE ISLAND.**Resolutions:**

State Horticultural Society.
 Narragansett Grange, No. 41, Wakefield.
 Central Grange, No. 34, Apponaug.

Letters:

F. E. Marchant, Master State Grange, West Kingston.
 J. Willard Boite, assistant professor agricultural and mechanical arts, Kingston.
 Frederick K. Roy, manager Providence Journal and Evening Bulletin.

Editorials and news items:

Newport Herald.
 Providence Tribune.
 Newport News.
 Providence Journal.

SOUTH CAROLINA.**Letters:**

J. N. Harper, director agricultural experiment station.
 C. L. Knoman, agricultural experiment station.
 Daniel McKie, Woodlawn.
 J. L. Dart, manager Charleston Southern Reporter.
 Publishers Cherokee News, Gaffney (telegram).
 W. A. Schrock, editor Camden People.
 C. K. Schwran, editor Rock Hill Record.
 N. Rogers Bayly, editor Batesville Advocate.
 Ed. H. DeCany, publisher Gaffney Ledger and Grit and Steel.
 Virginia D. Young, editor Fairfax Enterprise.
 J. Lee Platt, Mullins Enterprise.
 J. T. Bigham, editor Chester Lantern.
 S. A. Nettles, editor Southern Christian Advocate, Spartansburg.
 Mary B. Poppenhelm, editor Keystone, Charleston.
 W. C. Flosserson, Bullock Creek, York County.
 James H. Burfee, vice-president Chamber of Commerce, Seneca.

Editorials and news items:

Columbia State.
 Charleston Gazette.
 Charleston News.
 Charleston Evening Post.

TENNESSEE.**Letters:**

H. A. Morgan, director agricultural experiment station, Knoxville.
 H. B. Clay, Solitude Stock Farm, Church Hill.
 J. E. Converse, Morristown.
 Robert L. Burch, manager The Merchant and Manufacturer, Nashville.
 Sam K. Cowen, publisher Southern Lumberman, Nashville.
 S. A. Cunningham, publisher Confederate Veteran, Nashville.
 T. B. Medearis, editor A. O. U. W. Messenger, Nashville.
 J. W. SImonton, editor Covington Leader.

Editorials and news items:

Memphis Morning News.
Nashville American.
Nashville Banner.
Memphis Commercial-Appeal.
Chattanooga Times.
Memphis News-Sclimitar.

TEXAS.

Resolutions:

South Texas Fruit Growers and Truck Growers' Association.
Houston Truck Growers' Association.

Letters:

G. S. Fraps, State chemist agricultural experiment station.
Editor Texas Stockman and Farmer, San Antonio.
Editor Farm and Ranch, Dallas.
Editor Houston Chronicle.
Clarence Ousley, editor Fort Worth Record.
Editor Waco Times-Herald.

Editorials and news items:

Farm and Ranch, Dallas.
Texas Farmer, Dallas.
Southern Shippers' Guide.
Denison Herald.
San Antonio Express.
Houston Chronicle.
Kaufman County Sun.
Galveston Tribune.
San Antonio Daily Light.
El Paso Herald.
Austin Statesman.
Houston Post.
Dallas Times-Herald.
Fort Worth Record.
Galveston News.

UTAH.

Letters:

James M. Fisher, jr., president Salt Lake Horticultural Society, Calders.

Editorials and news items:

Ogden City Examiner.
Deseret Evening News.
Ogden Standard.
Salt Lake City Herald.
Salt Lake News.

VERMONT.

Resolutions:

Rutland Valley Grange, No. 314, Center Rutland.

Letters:

J. L. Hills, director agricultural experiment station, Burlington.

Editorials and news items:

St. Albans Messenger.
Rutland Evening News.
Burlington Free Press.
Windsor Journal.
Burlington News.

VIRGINIA.

Letters:

Meade Ferguson, bacteriologist, experiment station.
J. L. Phillips, State entomologist, Blacksburg.
J. F. Jackson, editor Southern Planter, Richmond.
Harry A. Stone, manager Southern Tobaccoist and Modern Farmer, Richmond.
Publisher Virginian Pilot, Norfolk.

Editorials and news items:

Southern Planter, Richmond.
 Richmond News Leader.
 Richmond Times-Dispatch.
 Richmond and Manchester News Leader.
 Roanoke World.
 Roanoke Times.
 Norfolk Dispatch.
 Roanoke News.

WASHINGTON.**Resolutions:**

State Grange.

Letters:

Publishers The Ranch, Seattle.
 Publishers Farm and Home, North Yakima.

Editorials and news items:

Walla Walla Union.
 Seattle Times.
 Seattle Post-Intelligencer.
 Tacoma Ledger.
 Everett Herald.
 Tacoma News.

WEST VIRGINIA.**Resolutions:**

Jefferson Grange, No. 377, Pleasants County.

Letter:

J. H. Rolston, Willere.

Editorials and news items:

Wheeling Intelligencer.
 Wheeling Telegraph.
 Wheeling Register.
 Parkersburg Dispatch-News.

WISCONSIN.**Letters:**

W. A. Henry, professor of agriculture, University of Wisconsin, College of Agriculture.
 E. P. Sandsten, horticulturist.
 Geo. McKerrow, superintendent farmers' institute.
 J. G. Moore, assistant commissioner dairy and food commission.
 U. S. Baer, secretary Wisconsin Cheesemakers' Association, Madison.
 J. C. Jetter, publisher North Freedom Journal.
 Frank E. Noyes, manager Marinette Eagle-Star.

Editorials and news items:

Wisconsin Agriculturist, Racine.
 Marinette Star-Eagle.
 Janesville Gazette.
 Milwaukee News.
 Milwaukee Journal.
 Fond du Lac Reporter.
 Wisconsin, Milwaukee.
 Wisconsin Times.
 Milwaukee Sentinel.
 Oshkosh Northwestern.

WYOMING.**Letters:**

B. C. Buffum, director agricultural experiment station, Laramie.
 C. Watt Brandon, Pinedale.
 (Telegram.) Publishers Encampment Herald.

COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES,
Washington, D. C., December 17, 1906.

The committee met this day at 10.50 o'clock a. m., Hon. James W. Wadsworth in the chair.

STATEMENT OF MR. BEVERLY T. GALLOWAY, CHIEF OF THE BUREAU OF PLANT INDUSTRY, DEPARTMENT OF AGRICULTURE.

The CHAIRMAN. The committee will come to order. Doctor, in order that the record may be regular, as it were, we will go on with that seed business first, and then while you are here, if we have time, we will take up with you the estimates of appropriations.

Mr. GALLOWAY. All right, sir. I came up only on the seed matter, however. Some questions may arise in reference to the estimates in regard to which I may want to consult my memorandum notes. But I will do the best I can.

The CHAIRMAN. Then we can have you again. I thought it might save time and trouble to have you speak now.

Now, Doctor, go on and state in your own way what you have to say. As I understand it, what you present will be the Department's view of the seed question?

Mr. GALLOWAY. Yes, sir. I shall present the Department's view and represent the Secretary in this matter, because I talked the problem over very fully with him, and the policy of the Department on this whole subject, I think, is pretty well understood. After all that has been said before the committee regarding the distribution of miscellaneous vegetable and flower seed it is not necessary to add very much from the standpoint of the Department. For the past six years the Department has sent out annually about 7,000,000 packages, of 5 papers each, of vegetable seed, and has never had any of these seed left on hand. During the six years the number of packages sent out has remained the same, while the cost has decreased about 12 per cent. This has been accomplished through improved methods of handling the work, by the introduction of modern machinery, and by doing away with the middleman in contracting.

The Department really does the work which was formerly done by the contractor, and thus saves the profit paid to him. In this way we have been able to save about \$30,000 annually in the last six years, and have used this money in connection with the distribution of rare and uncommon seeds.

The matter of the number of packets of seeds put up is one wholly dependent upon the kinds bought. If we bought certain kinds of seeds we could supply each Member of Congress with 20,000 packages of 5 packets each, but they would necessarily be very cheap kinds. If, on the other hand, we attempted to secure only novelties, i. e., very rare varieties that have scarcely been introduced by seedsmen, we would be limited to 3,000 or 4,000 packages each, so that the number of packages is a matter wholly of the kind of seeds that we secure. We have endeavored to secure the very best quality of seed of the kind that is obtainable, and I think that I can say fairly that the seeds we are now sending out are better than those we sent

out six or seven years ago, and they are getting better all the time. At the same time it must be understood that these seeds are of the average ordinary kind that the seedsmen themselves handle, and if, as I said before, we attempt to secure the novelties, which the seedsmen also handle, they would cost us eight or ten times as much.

Mr. CANDLER. Now, Doctor, right on that point. It has been charged frequently that these are not only very common seeds, very ordinary seeds, but of low grade, and so forth. You heard one of the gentlemen the other day that made practically that statement, and I would be glad if you would go into details and tell us exactly what processes and methods you pursue in order to get the seeds—the method you pursue in order to determine whether they are true to type and as to variety and quality of seed, and so forth.

Mr. GALLOWAY. The seeds are not poor seeds.

Mr. CANDLER. You know they spoke of your paying 15 cents a pound for onions while they were paying 30 cents.

Mr. GALLOWAY. We got these seeds out of stock in the spring—that is, they were on hand, and the same varieties were selling in the autumn for 75 cents or more a pound. In other words, we had offers to exchange those seeds in the autumn at a large profit. The offers came from seedsmen who were willing to exchange other kinds of seed for onion seed, the onion seed being scarce that year.

There is a wide range in the price of seeds, not only in the kinds of seeds, but in different years. It would be practicable, as pointed out, to secure seeds of such kinds that we could give each Member 20,000 packages instead of 12,000. This would necessitate, however, the elimination of all high-priced seed, such as corn, beans, peas, etc. On the other hand, we could, by limiting ourselves to novelties—that is, seeds which are as yet but little known—so increase the cost as to make it necessary to cut down the number of packages to two or three thousand for each Member. A standard variety of tomato, for example, might be bought for from 60 to 75 cents per pound, while a novelty might cost \$5, \$10, or even \$15 per pound, all depending on its newness and superior qualities.

Every member of the committee is perfectly familiar with the workings of the system of distributing the seed by the assignment of a certain number of packages to each. Each Member is the best judge as to whether these seeds are serving a useful purpose or not. The Members themselves are in close touch with their people and know their wants—something which even the Department with its machinery can not ascertain.

Now, we get these seeds in two ways: First, out of stock. Every year there is produced for seedsmen a surplus. A seedsman contracts with a grower to grow for him a certain number of bushels of beans, for example. The grower, in order to be safe, plants enough not only to supply that contract, but some excess. Now, if this happens to be a good year, there is produced more than an average excess, and that plan is followed by all the growers. You will see that in this way a surplus of stock is produced and left on the market.

Every spring we send out notices to the prominent growers of seed and seedsmen, asking what they can supply us out of stock. After we get the returns we see what is available, and our experts go over the matter and decide whether we will purchase the seeds or not, and there comes in the necessity of expert knowledge as to what the

possibility of next year's supply will be. We were fortunate in getting the onion seed referred to in this way.

Now, we serve two purposes in getting our stock in this way: First, we are able to determine definitely just what we can depend upon for seed, and secondly, we help the seedsmen by relieving the market of surplus stock. After the stock seed is all itemized we may find that we have 50, 60, or 70 per cent of our supply for next year, and then we must arrange with growers to supply the rest. We try to select good growers, who will grow for us seeds under a contract that allows our men to visit their grounds and inspect the growing plants, and if there is any evidence that the seed which is being grown is not true to the name, we have the option of rejecting it. On the other hand, the seed we buy in stock we do not accept unless it germinates to a certain vitality or unless it is true to name.

Now, as to the methods of testing, we have in our Department the best organized force, I think, in this country, if not in the world, for testing the vitality of seeds; and the samples of seeds that we get, both out of stock and those which we buy through the growers, as rapidly as they come in are tested and their vitality determined. If their vitality falls below a certain percentage we have the privilege of rejecting them.

Mr. CANDLER. What percentage is that?

Mr. GALLOWAY. It varies with different crops in different years. With beans it may be 90 per cent. Some years it may be difficult to get beans that will germinate that high. Our vitality tests must necessarily vary with the seeds. Our experts are in possession of the facts that bear on the question of vitality, and we gauge our requirements by the year. In the old days it was an arbitrary standard, and in many cases that was not found to be practicable or fair. I remember in one of the first distributions that I had charge of the standards were arbitrary, and it was impracticable to get certain kinds of seeds that would germinate as high as the requirements. Hence the contractor was constantly asking for the privilege of substituting.

Mr. CANDLER. I understand you have knowledge of the standard of seed that is grown in this particular year, and that you require the highest standard of germination for that year?

Mr. GALLOWAY. Exactly. For example, sweet pea seed, one of the flower seeds that we distribute, is grown largely in California. The crop may be making good progress, when a hot wind may sweep over the fields, and in a few days produce such effects that the vitality will be greatly affected. With a knowledge of these facts, of course, we guide ourselves accordingly.

Mr. COCKS. This is while the pea is growing?

Mr. GALLOWAY. Yes; this is while the pea is growing. In addition to the vitality work, we carry on at four or five places extensive trial-ground tests. Here we test not only all the varieties we distribute, but also many varieties offered by the seedsmen which give promise of being worthy of distribution.

Mr. CANDLER. You do not distribute any of these seeds, as I understand, that are left over by the seedsmen from one year to another?

Mr. GALLOWAY. No, sir.

Mr. CANDLER. Landreth claims that any seed that is left in the hands of the dealers is taken up by his firm and destroyed, so that

they have the reputation of having fresh seed only. He says others distribute seeds grown one year in the next year, and they do not come up.

Mr. GALLOWAY. Some seeds are benefited by age. Others are quick to deteriorate with age. Every year we are required by law to distribute all the seeds we get. We have nothing left, and hence we must go every year into the market to get our new stock. Now, if the stock does not come up to the standard we reject it, and the consequences are we have nothing old to work off. We have no old seeds left on hand.

Mr. COCKS. Do not the growers frequently keep seeds over a year?

Mr. GALLOWAY. Yes; I think all seedsmen do that, more or less, but of course the reputable men follow the same practice that we do in the vitality tests, and when a test falls below a certain point the seed is destroyed or sold for chicken feed, or used in some such way.

Mr. CANDLER. Then you do not send out any seeds of any varieties except those that have been tested as to vitality and those tested to determine whether they are true to type? All yours are tested in that way?

Mr. GALLOWAY. Yes.

Mr. COCKS. You can not test the seed sent out this year as to whether it is true to type?

Mr. GALLOWAY. That has been attempted a number of times, but the only thing we can do is to visit our growers where these seeds are being grown. At the same time we are careful in making our trial ground lists to keep track of every lot of seed that comes in, and if we find a grower who is not furnishing his stock true to name the next year we do not have dealings with him. We find very little of that difficulty, however, because the seed business is now so well organized and the fields where the seeds are grown are so accessible that our experts have access to most of them while in actual growth, and can tell better in that way than in any other whether the stock is true to type.

Mr. CANDLER. They say also that these seeds are distributed indiscriminately over the country, without any reference to whether they are adapted to the soil and climate or not. Please tell us what the Department actually does as to that.

Mr. GALLOWAY. Since the seed work has been in the Bureau of Plant Industry we have been endeavoring every year to have the seeds go into the regions where they are best adapted, and to that end we have divided the country into seven sections, and we select the seeds with reference to these sections. Hence the seed that we send into your State, for example, would not be the same as that which we would send into the States north of you, and what we send to the States north of you would not be the same as we send into the New England States; so that I think that matter has been pretty well worked out, and we are satisfied that the results are much better than they were under the old plan of buying so many seeds, and making them up into so many packages, and sending them out indiscriminately.

Mr. CANDLER. Now, what are the seeds you distribute as to variety?

Mr. GALLOWAY. Mr. Chairman, I do not know whether the way we are proceeding is the best one to bring out the various points in regular order.

The CHAIRMAN. Go on in whatever order you like. You might make a memorandum of the special questions that you want to answer.

Mr. GALLOWAY. Very well. I will come to Mr. Candler's question in a few minutes. Every Member, of course, is perfectly familiar with the system of sending out these seeds, and it is not necessary for me to comment to any extent on that. But I want to emphasize again the fact that we never have any seeds left on hand, and we always have a great many more requests for seeds than we are able to supply. Roughly, I should say that last year we had requests for one-third more seeds than we were able to furnish.

It may be of interest to you to know something of the manner in which the seeds are distributed—that is, the quantities distributed by different Members. I have here a brief statement which shows that 59 Members last year distributed over 20,000 packages each, 157 Members distributed over 12,500 packages but not exceeding 20,000 packages each, 246 Members distributed approximately 5,000 packages each, 13 distributed between 1,000 and 5,000 packages each, and 3 distributed less than 1,000 packages each. With your permission, I will incorporate this statement in the record.

Congressional distribution of vegetable and flower seeds, 1905-6.

(1) Number of Congressmen who distributed more than 20,000 packages of seed	59
(2) Number who distributed more than their regular quotas (12,500 packages) but less than 20,000 packages	157
(3) Number who distributed not exceeding, approximately, their regular quotas but more than 5,000 packages	246
(4) Number who distributed less than 5,000 packages but more than 1,000 packages	13
(5) Number who distributed less than 1,000 packages	3
Total	478

NOTE.—The word "distributed" is used to indicate the number of packages put up by the seed contractor. That is, if a Member transferred, say, 10,000 packages of seeds to another Member, the former is included above in (4), while the latter is included in (1).

The lowest number of seeds distributed by any one Member was 131 packages, this Member having transferred the balance of his quotas to other Congressmen.

Now, the number who distributed not exceeding their quota, that is, not exceeding 12,000 packages, was, as I said, 246, and the number who distributed less than 5,000 packages was 13, and the number who distributed less than 1,000 packages was 3.

The CHAIRMAN. Of course, where a city Member gave his quota to a country Member it is charged against the city Member. Against whom would that appear?

Mr. GALLOWAY. That would appear against the man who distributes them, not against the man who had them. For instance, the gentleman who distributed only 1,000 packages might have assigned the rest of his supply to one of those who distributed a great quantity, so that out of a total of 478 Members there were the numbers as I have given them—59 distributing 20,000 packages each, 157 each distributing between 12,500 and 20,000 packages, 246 distributing 5,000 packages, 13 distributing between 1,000 and 5,000 packages, and 3 distributing less than 1,000 packages each.

Mr. CANDLER. You included in that Members of the House and of the Senate also?

Mr. GALLOWAY. That includes both.

The Department's attitude on the ordinary seed distribution has been, I think, well understood for some time, and has been quite fully set forth in a number of the honorable Secretary's reports. In his report for 1903 the Secretary said:

With regard to the securing and distributing of miscellaneous garden and flower seed, the fact remains that this work does not accomplish the ends for which the law was originally framed. * * * These seeds are the best that can be obtained in the market, but from the fact that large numbers of packets are wanted, the seed obtained can be of standard sorts only, such as are to be found everywhere for sale in the open market.

The Secretary further says:

As there is no practical object to be gained in distributing this kind of seed [meaning miscellaneous vegetable and flower seed], it seems very desirable that some change be made. To this end it would seem wise to limit our work entirely to the securing and distributing of seeds, plants, etc., of new and rare sorts.

On this particular point I wish to a little more clearly state the attitude of the Secretary and of the Department in this whole matter. Congress in a number of ways has manifested its desire to have these miscellaneous vegetable and flower seeds, and to have them in such quantities as to meet the demands of their constituents. The Department has endeavored, and will continue to endeavor, so long as Congress takes this attitude, to supply the best seed available for the purpose. If Congress, in its judgment, believes the time has come to make a change, the Department stands ready to indicate in what manner this change can be made and in what way the funds now appropriated might be used for the upbuilding of plant industries. I am here to present this plan and to invite your suggestions and criticisms upon any points regarding it.

By way of introduction I may say that, in my judgment, the first error was made by the officers of the Department in the early days of plant and seed distribution by assigning to Senators and Members a certain specific number of packages. I do not know when this plan was first inaugurated, but to my knowledge it has been in operation in the Department for twenty years or more. We found the system so firmly established when the work was turned over to the Bureau of Plant Industry that it was quite impracticable to change it in its entirety. From time to time, however, we have adopted different methods with certain crops with, I believe, much more valuable results than have followed where the question of the division of packages was handled in a purely arbitrary way. Probably what was in the minds of the officers of the Department who inaugurated this plan was to equalize in a measure the things given to each Member. As the country grew and the demand for seeds became greater and greater, the Members found that the small number of packages assigned them was really a hindrance rather than a help, even as it would be now if Members were not in position to secure more than their regular allotment. This point is so well understood that it is not necessary to make any additional statements relative thereto. Any plan, therefore, that would have for its object the assignment of a certain number of packages to individual Mem-

bers would be objectionable because it would necessarily lead to difficulties in the districts where it would be impracticable to reach all those who really wanted new things.

It was a great deal easier for the man having the work in charge to sit down at a desk and mathematically divide the total quantity of seeds on hand than to study the needs of individual districts. So the practice grew of distributing quotas without regard to locality. A definite assignment of packages would be a mistake, as there would never be enough to go round.

Mr. HENRY. Have you ever tried that practice more than one year of sending to each Member 500 packages of selected seed?

Mr. GALLOWAY. Those were called novelties, and as I said the other day, we had most of them left on our hands. The plan that we want to suggest has for its object—

First. The abandonment of the miscellaneous distribution of ordinary seeds.

Second. The securing, through all the sources at the command of the Department, of valuable new seeds, plants, bulbs, etc., which are being developed at home and which are known only locally, and the distribution and testing of these new things in regions where it is believed they may have value.

Third. The securing from abroad of new seeds, plants, etc., for introduction into this country, and the upbuilding of agricultural industries as a result of this work.

In order to crystallize the suggestions made in the foregoing, I would like to submit a substitute for the existing authority for the purchase and distribution of seeds.

We have proposed two distinct lines of work: First, the securing and distribution of new things from this country, and secondly, the securing, distributing, and testing of new things from abroad. We have in this country many good things that are being developed by individuals here and there. The Department can, as it has done heretofore, get in touch with these men and secure these seeds and plants and distribute them. In addition, the Department, with its own scientists, is now breeding and distributing many kinds of seed.

The work abroad is of a different type, but it has practically the same end in view, namely, the securing from all parts of the world of good things and new things, and bringing them to this country, testing them in cooperation with individual farmers and growers, and the building up of new industries thereby.

As an example of one line of work, where local seed is the object, I might cite our tobacco investigations. Under the old plan it was the practice of the Department to send to the men who grew tobacco seed and secure 2 or 3 or 5 pounds of tobacco seed, put the same up into small packets, and give each Member 10 packages of 5 packets each.

Those tobaccos were simply what the ordinary growers grew. For the last four or five years we have had tobacco experts breeding special kinds of tobacco, and we now have types of very superior kinds. In various parts of the country we have developed particular types of tobacco peculiar to those regions. We have developed, in Florida and in Kentucky, for example, types of tobacco that are peculiar to those localities.

Mr. HENRY. Are you certain yet that these types that you have developed are going to be successes?

Mr. GALLOWAY. That is a question yet, but some of them certainly will be successes.

Mr. HENRY. You have not grown them long enough, however, to absolutely demonstrate that?

Mr. GALLOWAY. That is true.

Mr. HENRY. I have reference to your outdoor selections.

Mr. GALLOWAY. Mr. Chairman, some of these types have shown their unquestionable superiority over the old types. Instead of sending out the ordinary seed we are putting out these special kinds, and many have tested them under different conditions of soil and climate. We do not assign to each Member a certain number of packages, but we determine how much of the good seed we have and then send a communication to a Member representing a Kentucky district, for example, where fine tobaccos are grown, and ask him to furnish us with forty, fifty, or sixty names of good tobacco growers with whom we can get in correspondence, and if they are willing to undertake cooperative work we send them seed to plant. That is done through the different States.

Mr. HENRY. I want to have the privilege of saying that there has been something over 100 acres of tobacco under shade up in Connecticut, and one grower who grew last year some 60 acres has sold his first picking from the shade grown—that is, the bottom leaves, which are the poor leaves—they call them the “sand leaves”—he has just sold 13,000 pounds for export to Germany, at 75 cents a pound, and he has been offered \$1 for his other leaf and has not accepted it. I simply speak of that as a demonstration that the shade-grown tobacco is not a failure. It is being taken up by conservative men. This man whom I refer to has been in the business right along, and he is following it up. Next year he will put out 110 acres.

Mr. HAUGEN. How much do they get per acre?

Mr. HENRY. Last year this man sold his crop of “Connecticut seed,” as it is called, for nearly \$1,200 an acre, and his crop of Connecticut fine, twenty acres, for a little less than \$1,100 an acre.

Mr. GALLOWAY. The select seed we use in Florida, which has come as a result of this work, yields more than \$400 per acre more than the average crop. The average crop there, I believe, yields about \$1,000 per acre. We have already received in answer to the tobacco-seed circular requesting cooperation that we sent out last year about 4,000 replies, showing that the people take an interest in that work and will supply us with full data as it progresses.

Mr. LAMB. Have you got any replies from Virginia?

Mr. GALLOWAY. I think we have. With each lot of tobacco we send out a small pamphlet calling attention to the desirability of improving the types, and calling attention, furthermore, to what the Department has done by selection and breeding and asking the planter to plant these alongside of the ordinary kinds he is raising and to let us know the comparative result at the close of the season. These 4,000 replies that we have already gathered in we are beginning to compile.

In order to crystallize this matter I may, with your permission, Mr. Chairman, present a clause or item which is, in a measure, a suggested substitute for the existing seed bill.

The CHAIRMAN. The free seed bill?

Mr. GALLOWAY. Yes; and I offer this, of course, with the understanding that it is to be freely discussed, and I shall be glad to answer any questions relative thereto. It is short and covers the point that we have discussed, as to the manner in which we would do the work, and so forth. It reads:

For the purchase, propagation, and testing of new, rare, and uncommon seeds, bulbs, trees, shrubs, vines, cuttings, and plants, foreign and domestic; for the rent of buildings (not to exceed three thousand dollars); the employment of agricultural explorers, local and special agents, clerks, assistants, and all other necessary labor required in the city of Washington and elsewhere; the purchase of necessary office fixtures and supplies, paper, twine, gum, printing, postal cards, fuel, gas and electric current, transportation, traveling expenses, and all necessary material for securing, testing, propagating, packing, and distributing the seeds, bulbs, trees, and so forth, above specified, two hundred and forty-two thousand dollars. And the Secretary of Agriculture is hereby directed to spend the said sum, as nearly as practicable, for the encouragement and advancement of agriculture and horticulture throughout the United States, through the systematic introduction of new, rare, or uncommon seeds, bulbs, trees, vines, cuttings, and so forth; in the establishment of new or the improvement of existing plant industries; in collating, digesting, reporting, and illustrating the results obtained through the testing and distribution of new and rare seeds, bulbs, and plants herein provided for; and the Secretary of Agriculture is further directed to purchase such new and rare seeds, bulbs, plants, vines, and cuttings at public or private sale, and to arrange for the propagation, testing, and distribution of such seeds, bulbs, plants, and cuttings in such manner as he may deem expedient, obtaining, so far as practicable, the advice and cooperation of Senators, Representatives, and Delegates in Congress: *Provided*, That such seeds, bulbs, and plants shall be distributed to actual experimenters only for experimental tests, and that the Secretary of Agriculture shall cause a record to be kept of all persons to whom seeds, bulbs, or plants are sent, in order that reports on the results of the experiments may be secured in as many instances as possible: *And provided further*, That the Secretary shall, so far as practicable, cooperate with the State experiment stations and practical farmers, fruit growers, and others, in order that the seeds, bulbs, and plants may be distributed with due regard to their adaptability to the various soil and climatic conditions prevailing in the United States. The Secretary of Agriculture is hereby also directed to prepare annually a report showing what the results of the distribution have been.

That directs the Secretary, first, to secure these rare and uncommon seeds, both domestic and foreign, and to distribute them to actual experimenters only; to distribute them in cooperation with the Members and Senators and the State experiment stations, and each year publish a report on the results of the work.

The CHAIRMAN. Have you any fear that that might grow into another free-seed distribution?

Mr. GALLOWAY. No, sir.

Mr. BROOKS. Mr. Chairman, I beg the pardon of the committee, but I was called out by another committee to vote. Would you mind reading the first part of that again?

Mr. GALLOWAY. The first part deals mainly with the authority to employ agents in Washington. Do you mean that?

Mr. BROOKS. No; I mean the next part.

Mr. GALLOWAY. This is the part Mr. Brooks is interested in [reading]:

And the Secretary of Agriculture is hereby directed to spend the said sum, as nearly as practicable, for the encouragement and advancement of agriculture and horticulture throughout the United States through the systematic introduction of new, rare, or uncommon seeds, bulbs, trees, vines, cuttings, and so forth; in the establishment of new or the improvement of existing plant

industries; in collating, digesting, reporting, and illustrating the results obtained through the testing and distribution of new and rare seeds, bulbs, and plants herein provided for. And the Secretary of Agriculture is further directed to purchase such new and rare seeds, bulbs, plants, vines, and cuttings at public or private sale, and to arrange for the propagation, testing, and distribution of such seeds, bulbs, plants, and cuttings in such manner as he may deem expedient, obtaining, as far as practicable, the advice and cooperation of Senators, Representatives, and Delegates in Congress: *Provided*, That such seeds, bulbs, and plants shall be distributed to actual experimenters only for experimental tests, and that the Secretary of Agriculture shall cause a record to be kept of all persons to whom seeds, bulbs, or plants are sent, in order that reports on the results of the experiments may be secured in as many instances as possible: *And provided further*, That the Secretary shall, so far as practicable, cooperate with the State experiment stations and practical farmers, fruit growers, and others, in order that the seeds, bulbs, and plants may be distributed with due regard to their adaptability to the various soils and climatic conditions prevailing in the United States. The Secretary of Agriculture is hereby also directed to prepare annually a report showing what the results of the distribution have been.

Mr. LAMB. That accomplishes just two purposes of change. In the first place it confines your work to rare, new, and uncommon seeds, and in the second place it relieves the Representatives and Senators of the burden of the distribution. You take that on yourselves?

Mr. GALLOWAY. Yes.

Mr. BROOKS. And it enables the Department to do that with the cooperation of Members and Senators.

Mr. GALLOWAY. We assume, for instance, that Mr. Brooks will give us the names of 100 farmers in his district, with whom we can cooperate in growing certain kinds of crops. We may not accept all those after we get into correspondence with them, but we make a selection of them, and we make for them an actual demonstration of what can be done, and publish the results if they warrant publicity.

The CHAIRMAN. Before you leave that phase, Doctor, where would you propose under that paragraph to make your experiments?

Mr. GALLOWAY. We would make them wherever the climatic and soil conditions would offer the best advantages. In that connection we frequently find it necessary to cooperate with the individual farmer or fruit grower, for the reason that his conditions may be just what we want to bring out the point we wish to demonstrate. At the experiment stations the conditions may be such that we could not get the best results. At the same time many things could be done at the experiment stations. The individual farmers or fruit growers, however, are the men we are anxious to cooperate with. That is the way we handled our durum wheats. We secured the names of individual farmers, and through them the work has grown until now we produce 50,000,000 bushels of this wheat in that semi-arid region out there.

Mr. CANDLER. This would eliminate the burden of distribution from the Members. They would simply give you names and you would correspond with the parties, and if, after corresponding with them, you believed it profitable or practicable to have cooperation with them, you would send them sufficient seed to make the experiments?

Mr. GALLOWAY. Yes, sir.

Mr. COCKS. Are there any experiment stations close to the Atlantic coast, within 20 or 30 miles of the coast in the north temperate zone?

Mr. GALLOWAY. No, sir; I believe not.

Mr. HAUGEN. Doctor, is not this practically duplicating the work that is now being done by the experiment stations?

Mr. GALLOWAY. No, sir.

Mr. HAUGEN. As I understand, in traveling over the West you are introducing various new seeds?

Mr. GALLOWAY. It is duplicating in a measure, but the fact that we might be able to develop, for example, a type of seed in Minnesota that would be valuable for some other State, say Wisconsin, than has been developed in Wisconsin, shows that it is a useful thing.

Mr. HAUGEN. We have an experiment station in each State, and I presume each State is experimenting on everything that would be of interest to it.

Mr. GALLOWAY. We are proposing to cooperate with the experiment stations in all this work so far as is practicable.

Mr. BROOKS. In cooperating, you do not mean to use the experiment stations as the conduit or medium by which you come into contact with the farmer?

Mr. GALLOWAY. No, sir; not necessarily.

Mr. BROOKS. For instance, see if I have got your idea: If you were experimenting with corn, would you propose that the experiment station conduct a series of experiments for the farmer, or would you do your own experimenting for him and test the corn for him? Coordinate with that, you would get in touch through the Members and Senators who selected farmers of their districts and States?

Mr. GALLOWAY. Yes. In Iowa, where Professor Holden, for example, is working in connection with the improvement of corn, he might secure for us certain types which we could in our cooperative way send out to farmers throughout other States.

In reference to lines of work which might be carried on in this way, I have with me outlines of a number of projects. I may say that the Department has been doing this kind of work for a number of years, as is well understood by the members of this committee. The amount annually appropriated for foreign-exploration work has been increased from \$20,000 to \$37,780. In addition to this we have expended annually about \$63,000 in the purely demonstration work and the upbuilding of new industries. In order that this work might be systematically carried on we have, as has been done with all the other work of the Bureau, divided the lines of investigation into various projects, each of which is specific and each of which shows on its face, I think, the value that would result to the country by carrying it out.

The following is a brief outline of some of the projects proposed. In each case a map of the United States is submitted with the project, which further explains the scope of the work. As stated, from 73 to 75 of these projects or plans have been developed, some of which are already in operation. Those now started could be materially extended with advantage to the country:

(1) *Extension of Arabian alfalfa in the Southwest.*—This work would be carried on in California, southern portions of Nevada, southern portions of New Mexico, Arizona, and extreme western Texas. This new Arabian alfalfa was discovered a few years since in eastern Arabia, and tests have shown that it has promise of great value in the southwest portions of the United States. The project would have for its object the further securing of seed

and the accumulation of a sufficient supply for thoroughly testing it in the territory indicated. It is estimated that this work would cost about \$3,800.

(2) *Extension of alfalfa growing into States where not now a staple crop.*—This work could very profitably be carried on in the States of Ohio, Pennsylvania, West Virginia, Virginia, Maryland, Kentucky, Tennessee, and North Carolina. The great superiority of alfalfa over other forage crops makes its introduction into any section of considerable moment. The plan has for its object the introduction of the best types of seed and the encouragement of small demonstrations with individual farmers to determine the best methods of growing the crop under varying soils and climatic conditions.

(3) *Extension of cold-resistant alfalfa.*—This work is planned for the northern portion of Montana, for North Dakota, Minnesota, Wisconsin, northern Michigan, and the northern portion of South Dakota. Alfalfa, as it is known, is a suitable crop for most of the Great Plains area, and wherever it has been introduced in this section it has practically revolutionized agriculture. Unfortunately, the severe winter temperatures incident to North and South Dakota and to the other States mentioned have greatly retarded the progress of the introduction of ordinary alfalfa in these sections. Some promising hardy type alfalfas have already been secured, as the Grimm alfalfa, Turkestan, etc. The production of seed of these types and their introduction and testing would be a part of the work.

(4) *Extension of dry-land alfalfa.*—This work would be carried on in the western portion of South Dakota, Kansas, Nebraska, the Panhandle of Texas, eastern Colorado, and eastern Wyoming. The plan would be to introduce, disseminate, and encourage the growth of drought-resistant types of this crop over this extended area. Already promising results have been secured in a limited way.

(5) *Distribution of new varieties of cotton.*—This work would be applicable to the whole of the cotton-producing States, and would have for its object the securing of new types of cottons developed by individual farmers throughout the South to a high state of productivity, and the distribution of special types being bred by specialists in the Department. This work has been going on for some years and very satisfactory results have been secured. Unquestionably one of the most valuable fields for work to-day is in the improvement of types of cotton for the South. This is especially necessary wherever the boll weevil has come in or is coming in. Early maturing types are absolutely essential for this territory. The improvement of the staple, increased production, storm resistance, and many other qualities can be developed.

(6) *Introduction of a matting plant and its growth in the United States.*—We import about \$5,000,000 worth of matting from foreign countries. It is believed that most of this material could be made here if the raw material could be grown. There is plenty of land in the States of Texas, Louisiana, Mississippi, Alabama, Georgia, and North and South Carolina which is adapted to the growing of this crop. It is important to introduce the best kinds of matting plants from abroad and to establish the growing of the crop here. It is also important to improve our own native farms for this purpose.

(7) *The improvement of cowpeas.*—This work would be applicable to all of the South Atlantic States and also the States of the Middle and Central West. The object would be to secure and introduce new and improved varieties of this crop, especially such as will permit harvesting the seed by machinery, as this will greatly reduce the cost of the work. Furthermore, the plan would be to determine the best varieties for each section of the country; also to push the cultivation of the crop northward.

(8) *New tobacco varieties.*—This work would have for its object the securing and distribution of carefully selected seed of foreign-grown varieties of tobacco, such as Sumatra, Cuban, and Turkish; also the distribution of the seed of varieties of tobacco produced by the investigators of the Department of Agriculture; also the introduction of improved established varieties into sections where tobacco is not now grown, but which seem adapted to its culture on account of climatic and soil conditions. The work would be applicable to nearly all of the New England States, with the exception of Maine, to New York, portions of Pennsylvania, Maryland, Virginia, Tennessee, Kentucky, Ohio, Illinois, Missouri, Michigan, Wisconsin, Louisiana, and eastern Texas; also to certain regions in the Western States, such as Idaho, Nevada, California, and Washington.

(9) *Introduction and testing of alkali-resistant crops.*—The map shows the important alkali areas in the United States; the black which is on the red spots

indicates the location of the proposed testing stations. The object of the work would be the introduction and testing of crop plants that give promise of utility for alkali soils, such as annual leguminous forage crops, all available strains of alfalfa, native forage grasses, varieties of wheat, oats, barley, rye, and sorghum. Already some promising results have been secured in this field in a limited way.

(10) *Grains for high altitudes.*—The application of this work would be in the great plateau region of the country, namely, portions of Montana, Idaho, Wyoming, Utah, Colorado, New Mexico, Arizona, and a small portion of the Panhandle country; also the southern portion of Nevada. The immediate needs of this work would be the securing of special crops for these high altitudes. So far very little has been done in the way of introducing special crops for these plateaus. A study of the crops of central Asia has shown the existence of barleys and other grains now successfully grown at altitudes of 10 to 15,000 feet which should be introduced into our own mountain areas, where the altitudes on the average are considerably less. It is planned to have an exploration made of this great region of central Asia and to introduce and test in this country promising crops from this section.

Some of the things that we are already on the track of or have obtained are the naked oat from Russian Turkestan; various hull-less barleys from Chinese Tibet and Chinese Turkestan; wheat, barley, and peas raised by the Kargan Tibetans; barley and wheat from eastern Tibet, where the temperature during the growing season falls to 8° or 10° C. below zero at night; rice, cotton, and maize from various portions of Chinese Turkestan; hull-less barley from the province of Kansu, and glutinous rice from Hanchong, northwestern China, etc.

(11) *Adaptation of winter oats.*—This work would be confined to practically all of the Southern States, with the exception of extreme southern Florida and western Texas. It would also include southern portions of the States of Missouri and Illinois. Its object would be the introduction of hardier varieties of winter oats for the entire region. The oat is the most important grain crop in the South, but the yield is only a fraction as large as it could be, on account of the great amount of winterkilling. Winter or cold-resistant types are the kind that should be developed and distributed.

(12) *Sugar-beet seed growing.*—Practically all of our sugar-beet seed now comes from abroad. Preliminary experiments and tests have indicated that we can grow as good or better seed in this country as anywhere in the world. The object of the work would be to produce and distribute commercial sugar-beet seed with the primary object of developing a new American industry, namely, the production of our own sugar-beet seed. It must be determined first in what localities the sugar-beet seed can be produced successfully, and second, the beet itself must be improved in size and quality through the selection and production of our own seed. The map presented shows the various stations at which the work might be carried on, and would include all of the sugar-beet growing States.

(13) *The improvement of corn.*—The object of this work would be simply the breeding and selection of corn adapted to different climatic and soil conditions throughout the United States. The work would be applicable, in large part, to all portions of the United States. Corns for the extreme north; corns for the south; corns for highly fertile soils, and corns for poor, thin lands; corns adapted to river-bottom lands; drought-resistant corns, and corns that could be grown successfully under irrigation are some of the lines of work involved in this project.

(14) *Bulb growing in the United States.*—Some preliminary work has shown the practicability of introducing bulb culture in this country. Certain kinds of bulbs can be grown successfully in the South, and the work should be encouraged. The tulips, hyacinths, and other Dutch bulbs, now almost wholly imported, might possibly be grown on the Pacific coast. This is a most promising industry, and the work would be applicable to Washington, Oregon, California, southern Texas, southern Florida, portions of South Carolina, and North Carolina.

(15) *Cultivation of drug plants.*—We import in the neighborhood of four or five million dollars' worth of drugs each year, and preliminary investigations would indicate that a considerable portion of these drug plants might be grown at home. The work would be applicable to nearly all of the States bordering on the Atlantic Ocean and also some of the Western States, such as Ohio, Indiana, Illinois, Wisconsin, and northern Iowa. The object would be to introduce the seeds of the promising drug plants and encourage the production of the crops, this being in cooperation with individual farmers and others.

(16) *Dry-land arboricultural work.*—This work would have for its object the introduction and testing of tree-like plants adapted to the great dry-land sections of the Southwest. It would include, first, breeding, propagating, and testing deep-rooted and drought-resistant trees and shrubs adapted for culture in dry-land regions, with special reference to the introduction and propagation of new varieties of the date palm, and, secondly, the introduction of promising trees and shrubs from the deserts of Mexico, South America, Africa, and Asia with a view to securing stocks for breeding, selection, and propagation. There are many such dry-land plants, dry-land olives, dry-land pistachios, date palms, and many other crops that ought to be introduced into this southwestern country and which could be introduced and tested were proper means at hand.

(17) *Introduction of hardy apples for the apple breeders.*—This work would be applicable to the entire tier of Northern States from Maine to and including Montana. The object would be to find out through a study of published accounts of travelers and explorers where in different parts of the world are to be found apples, or forms related to them, which are likely to be valuable in the breeding of hardier and more drought-resistant varieties of apples for this northern country. This work would be done largely in cooperation with experiment stations.

(18) *Introduction and breeding of new citrus fruits.*—This work would be applicable to the southern half of the States bordering on the Atlantic and the Gulf of Mexico. It would also be applicable to the southern half of Texas, Arizona, New Mexico, practically the whole of California, and a considerable portion of Washington and Oregon. It would have for its object the introduction and investigation of hardy citrus fruits, with special reference to testing and propagating forms better than those now cultivated, the securing of hardy citrus fruits, both by selection and breeding and from the introduction of new citrus stocks. Considerable work has been done along this line, and the Department has now distributed some of the types which were originated several years ago.

The foregoing types are selected at random out of the list given. Others could be given, but it is believed these will suffice to indicate the general lines. As an additional and important piece of work, a project having for its object the aiding and benefiting of truck growers along the Atlantic coast is under consideration. Aid could be furnished the truck growers through the development of better types of vegetables, the improvement of existing types, and the securing and distribution in a limited way of promising things from home and abroad.

Mr. HAUGEN. What about this corn [indicating sample]?

Mr. GALLOWAY. That is a sample of Minnesota corn.

I have here a little map which shows an outline of our proposed work on dry-land alfalfas. We have been working for some time on the matter and securing alfalfas for dry lands.

The CHAIRMAN. You mean for arid lands?

Mr. GALLOWAY. Yes, sir. This is arid country [indicating] marked by these stars here. We have secured some of these alfalfas from abroad and have secured others as the result of the investigations of our experts here at home, who have found these alfalfas that have escaped and have been growing wild above the ditches in the West and by survival of the fittest have established themselves as dry-land crops. It is desirable to make a demonstration of the possibilities of these crops in the dry-land area, and these photographs [submitting same] show the root capacity of the crops grown on the same soil.

The CHAIRMAN. What results have you obtained with these experiments?

Mr. GALLOWAY. Very meager results, because the work has just been inaugurated. These are projects, you understand, that could be carried out under this plan [presenting other outlines of projects].

The CHAIRMAN. I see.

Mr. GALLOWAY. Here [indicating] is a project for extending the growth of alfalfa into the Eastern States. There are many questions pertaining to the kinds and types of alfalfas adapted to the soil of the different States.

Mr. CANDLER. Have you made any test of alfalfa in the Southern States?

Mr. GALLOWAY. Yes; we have been doing some work there.

This is a plan [producing same] for the extension of alfalfas in cold countries. We have secured a few types growing here and there in this region [indicating] which we are endeavoring to propagate and have tested, believing that if we can develop this alfalfa in this country it will benefit the agriculture of the entire region.

Mr. BROOKS. That same sort of alfalfa would do also for high altitudes, would it not?

Mr. GALLOWAY. Yes, sir. Here is another project to grow crops on alkali soils.

Mr. COCKS. They ought to have a few spots in Kansas.

Mr. GALLOWAY. Other branches of the Department have for some time been investigating these alkali regions, and we have been interested in crops that will grow on alkali land. This work [indicating] is the introduction of alfalfa on alkali soil. We already have alfalfas from the Sahara region that grow in soil containing a large percentage of alkali, where any ordinary kind would die.

Mr. BROOKS. One and one-half per cent is absolutely prohibitive?

Mr. GALLOWAY. Yes.

Mr. BROOKS. I want the committee to understand that, because thereby hangs a tale by and by. Your work concerns alkali-resisting properties?

Mr. GALLOWAY. Yes.

Mr. BROOKS. You are not touching two other phases of that work—first, drainage, and second, the proper use of surface water to prevent the accumulation of alkali?

Mr. GALLOWAY. No, sir. The farmer may have proper drainage and water; but if he is on alkali soil the question arises, what kind of a crop can he grow on that soil most profitably? We go to him and suggest that he grow some of these alkali-resisting plants which we have been testing. I have some photographs here [producing same] showing the growth of these crops on alkali land.

Mr. BROOKS. And there is a wide difference between those resistant even in the same crops?

Mr. GALLOWAY. Yes.

Mr. BROOKS. They tell me there are sugar beets that will stand 1 per cent.

Mr. GALLOWAY. We have some evidence that there are.

Here is a project for cold-resistant apples. Here is a work [presenting same] that has for its object the adaptation of grains to high altitudes. We have many farming regions at high elevations, and we have good land and good farmers there, but the altitude prevents them from growing certain kinds of crops. We have been introducing from certain places and breeding certain crops that will grow at these high elevations. We have evidence that in the plateau region of Asia there are types of grains of various kinds and many

fruits that would be appropriate to this plateau [indicating on diagram]. We want to get our explorers into these regions and secure the promising things there for our high plateaus.

We import every year \$500,000 worth of sugar-beet seed, when all that seed could be grown in this country. We have already grown some. We have pointed out and proved that we can grow in Washington State seed of much higher sugar content than that which we bring from abroad. We are sending out this year some samples of sugar-beet seed that will go as high as 20 per cent sugar on the average and some that will go as high as 23 and 24 per cent. An agent that we have in Washington State will grow 165,000 pounds at an average of 20 per cent.

Mr. BROOKS. The average for the country is 9.8.

The CHAIRMAN. How are you getting along with that single germ?

Mr. GALLOWAY. We have now some beets that will give us 35 per cent of single-germ seed.

Mr. BROOKS. Have you any figures as to what it would mean to the sugar growers if you could increase the average sugar content 1 per cent?

Mr. GALLOWAY. It would mean nearly \$1,000,000 for Colorado alone.

Mr. BROOKS. Roughly, it would be about \$3,000,000 to the sugar growers of the United States if you could increase the content 1 per cent?

Mr. GALLOWAY. We can grow as fine seed in Colorado and other places as that which we import. The seed grown in Washington State would perhaps not be as well adapted to the soil conditions as that grown somewhere else. The only difficulty about growing seed in the eastern United States is in the harvesting of the same.

Mr. LAMB. You can grow good seed in Virginia—

Mr. BROOKS. And I doubt if you can not grow sugar beets in Virginia.

Mr. GALLOWAY. There is a project for growing bulbs at home. Practically all of our bulbs are grown in Holland. We can grow them on the Pacific coast and in the Southern States, and there is no reason why we should not develop this industry here. We are already growing, in a trial way, some of these bulbs, and the difficulty heretofore with the Pacific coast bulbs has been the cost of freight. Heretofore we could buy bulbs in Holland and send them to Chicago, for example, more cheaply than they could be bought in Washington State and sent to Chicago.

Another line of work is the introduction of hardy citrus fruits. When we had that great freeze in Florida some years ago the whole citrus industry there probably went out of existence. Since that date we have been breeding cold-resistant fruits. We have developed them only in a very limited way thus far because of lack of funds, but these hardy oranges are as safe now in South Carolina as the old citrus trifoliate, the Japanese type, which was one of the parents. These hardy fruits were obtained by crossing a Japanese nonedible variety with the edible orange. We have sent out four different types. None of them are entirely sweet, but all of them are valuable for marmalade and preserves.

Mr. BROOKS. That particular work is almost entirely in the Southern States, is it not?

Mr. GALLOWAY. Yes, sir. Here is a line of work entirely in the Southern States; it is in connection with our improvement of cottons. Here we have one of the finest fields for work. We have been breeding types for different sections, and have been distributing for the last four or five years types superior to the ordinary kinds.

The CHAIRMAN. All this, as I understand it, Doctor, is an extension of what you are doing now in a small way?

Mr. GALLOWAY. Yes. This is a proposed enlargement of our present projects, with some new projects added. Here [submitting outline of project] is another important project for the Southern States, and that is on the question of cowpeas. The cowpea is one of the most valuable crops of the South, and its improvement means better farming generally.

Mr. LAMB. Can you do all this with \$242,000?

Mr. GALLOWAY. We can do a good portion of it. We have laid this plan out to cover most of the projects here outlined. You will see the cost of each one at the bottom of the page. The 76 projects amount to about \$300,000, but we can take off a project here and there if necessary.

We have now developed and elaborated about 76 distinct projects, as I said, with the machinery and men for carrying them on. To conduct all this work would require more funds than the total appropriation here asked for, but in view of the fact that the projects are arranged as projects, we could bring them within the scope of the present appropriation, although we believe that additional funds could be used to good advantage.

Now, the question will naturally be asked, In what manner would these different lines of work be conducted, and in what way would they benefit the districts where the seeds and plants might be sent? Some of this work we have pointed out would be done through individuals secured directly by the Department, and a considerable portion would be done through individuals secured as a result of the advice and cooperation of the Senators and Members, who know the individual needs of their constituents and districts. I have cited our present tobacco work as an example of the manner in which all of these lines of investigation would be carried on, with such modifications as the exigency of each case might require. Under the old plan, as indicated, it was customary for the Department to go to the trade and simply purchase a certain number of pounds of the different varieties of tobacco offered by tobacco-seed growers. No special effort was made by these growers in the matter of developing types. In fact, the Department secured just the ordinary everyday seed used by the majority of small growers. Three or four years ago the Department entered upon a critical investigation of tobacco types with a view to the breeding and selection of those which would be better adapted to existing conditions in the different sections. This work has been in charge of one of our ablest young men and has been quite successful in a number of sections. High-grade types of tobacco have been developed by breeding and selection, which make it possible for practical growers to realize much more from their crops than they have ever done before.

It is this carefully and scientifically selected seed which the Department is now sending out to the different tobacco-growing sections which have, up to this time, been studied. Instead, however,

of assigning each Member in the tobacco districts a certain number of packages, at the end of the season and with a knowledge of the value of the types we have and what the types are, we ask the Members who have constituents capable of taking hold of this matter to furnish us with a certain number of names of reliable parties with whom we could get into correspondence. We take up the matter with them in a careful way, go over the ground, confer with them relative to their soil conditions, and supply them with sufficient seed to make a demonstration and comparison with the seed that they are already using. This correspondence is always conducted in such a way as to shift to the Department the responsibility for not being able to supply seed to everyone.

This, in brief, would be our general plan for handling all of these projects. In the matter of work on dry land alfalfa, for example, it is our desire to introduce these alfalfas into the drier sections of the United States—namely, the Panhandle of Texas, western Kansas, eastern Colorado, western Nebraska, eastern Wyoming, and western South Dakota. We could secure the names of a sufficient number of reliable men in these districts to enable us to start the work, and if it were successful the Member through whose instrumentality the work was inaugurated would, of course, get the credit therefor.

By the plan here proposed Senators and Members would be relieved of all the necessity of distributing each year a certain specific number of packages. They would be relieved of any criticism that might be made on the ground that because Mr. A. secured this thing Mr. B. ought to have a supply also. They would, instead, be equally instrumental with the Department in introducing new and valuable industries in their respective districts and the upbuilding of agriculture therein.

Mr. FIELD. When will you get your reports with reference to improved cotton? When will you receive reports with reference to this year's experiments?

Mr. GALLOWAY. They are coming in now. For example, this year in Texas we have a cotton which has been bred from the Triumph, with which you are familiar, probably; an early cotton that is ten days earlier than the Triumph, just as prolific and with just as good a staple, and just as storm-proof.

At the experiment station in Texas there are some entirely distinct types which have been developed by Professor Bennett. They are dwarf, prolific, and early.

Here is another proposition [submitting same] for the crops in the semiarid region in the West. Here also are some samples of American dates grown out in the West. We have now at Tempe, Ariz., an experimental date orchard, which this year gave us our first yield of fruit. The fruit matures early and is just as good as the best fruit from Arabian and Egyptian trees. This particular tree here [submitting photograph]; you see how it bears fruit. That is a date [submitting boxes of fruit], a date that sells for 50 cents a pound. That tree is making more suckers, and we are disseminating it as fast as we can. We have also a date farm at Mecca, Cal.

Mr. BROOKS. These are the Tempe dates?

Mr. GALLOWAY. Yes, sir. They look dry, but they are good. This is about a third quality of date. Of the best types I do not happen

to have any samples, but the State experiment station is putting up these sample boxes and selling them.

The CHAIRMAN. As I understand it, Doctor, they are a good commercial proposition?

Mr. GALLOWAY. Yes, sir; they are.

The CHAIRMAN. That is a very sweet date that I got hold of.

Mr. GALLOWAY. The so-called Deglet Noor date is of finer quality and is sold only in the finest markets of the world, but we have plants started here. We sent one of our men to the Sahara, and he brought them out. These dates, you understand, grow from suckers and do not come true from the seed. The first plants that we got were evidently seedlings.

Mr. BROOKS. These trees will grow with very little water?

Mr. GALLOWAY. Yes; and in alkali soils, and the hotter it is the better they will grow.

We import every year from Japan and China \$5,000,000 worth of floor matting. It is made of an aquatic plant like a rush. The matting is all made in Japan and China by hand. We have been for three or four years encouraging manufacturers here to develop a machine that will weave this matting. There are machines now that can make as much matting in a day as thirty Japanese can make by hand in a day. All that is necessary now is to have the raw material. The best raw material is grown in Japan, because they have been growing for ages this rush and selecting it for the particular purpose of making matting. We have rushes of this sort in our swamps, but they are not selected properly or specialized. We tried to select and import plants from Japan, but found that the seed did not come true to the type.

Mr. COLE. Where is this manufacturing plant?

Mr. GALLOWAY. One is in Maine and one is in Boston.

Mr. COLE. I was through that one in Massachusetts last summer during the campaign.

Mr. GALLOWAY. What we want is raw material, and the abandoned rice lands in South Carolina and elsewhere are suitable for growing the rushes.

Here is another project [submitting same] on improved corn. That is a line of work that covers practically the whole country, to develop and breed these new corns. For instance, here is a corn—the increase of yield is marked on the label—and by the breeding work they are developed up to the point you see marked on them [submitting specimens]. In corn beauty and shape do not necessarily include productivity. A farmer may secure a large, beautiful ear of corn, but it may not have the inherent quality of reproducing itself.

Mr. LAMB. Is this Kentucky and Tennessee corn the corn you sent me?

Mr. GALLOWAY. I do not think it is.

Mr. LAMB. You sent me some just like this, and I never saw such an improvement. It was a barrel or two to the acre more.

Mr. GALLOWAY. I have now given you an idea as to what the nature of this work would be, and in what manner we would introduce it into different parts of the country. I have endeavored to make the matter plain, and if I have not it is my own fault.

The CHAIRMAN. The Department's idea is that this would be of much greater benefit to the country at large than the free seed distribution?

Mr. GALLOWAY. Yes, sir.

We have other projects involving the production of drug crops in the South—camphor, etc. The camphor work is pretty well on its feet. We have demonstrated the practicability of growing camphor, and a firm is going to establish a plant in Florida.

Mr. BROOKS. Hitherto we have got all our camphor from the island of Formosa?

Mr. GALLOWAY. Yes.

The CHAIRMAN. Is there any chance within the bounds of our country of growing camphor?

Mr. GALLOWAY. Yes; in California, and in Florida and other Southern States.

Mr. COCKS. How about Porto Rico?

Mr. GALLOWAY. It would not grow so well there, because it does not require so hot a climate. The most suitable climate is one just on the margin between the tropical and the temperate zones. A properly managed grove would yield from \$200 to \$300 per acre. We would not destroy the trees, as is usually done, but would take the prunings or trimmings from the trees and extract the camphor from them. The ordinary method is to cut down the trees and extract the camphor from the gum. We have found that we can get camphor from the twigs and branches in paying quantities.

Another question that has not yet been solved is how long the trimmings can be kept and how much they can be dried without reducing the quantity of camphor in them.

Mr. BROOKS. Would you give to the committee, just for our information, any figures, say, on three type examples? I think the wilt-resisting cotton has been introduced this way, and the seedless orange, and the durum wheat. What would be the value, agriculturally, of these three crops, just in a rough way?

Mr. GALLOWAY. About \$25,000,000.

Mr. BROOKS. Did you ever know of a practical advantage that came to the agriculturists of the country by the distribution of lettuce, radishes, onions, and beets?

Mr. GALLOWAY. You are asking me that question?

Mr. BROOKS. No; I will withdraw that. [Laughter.]

Mr. FIELD. The Department does not claim that there is a weevil-resisting cotton, does it?

Mr. GALLOWAY. No, sir.

Mr. BROOKS. In your judgment, Doctor Galloway, is there any Congressional district in this country where you can not profitably expend your energies along the line laid down here?

Mr. GALLOWAY. Not one.

The CHAIRMAN. Any Congressional district?

Mr. GALLOWAY. No.

The CHAIRMAN. Doctor, while you are here, please tell the committee what you have done along the line of this emergency appropriation for the cotton boll weevil. What advance have you made on that?

Mr. GALLOWAY. The cotton work under the emergency item has been carried on, as usual, under a number of heads. The first is the

work in connection with the farmers themselves—what we call our farmers' cooperative work. That work is in charge of Doctor Knapp, whose headquarters are at Lake Charles, La. The general plan is to get directly in touch with the individual cotton grower to convince him that he can improve his condition and grow cotton despite the presence of the weevil. We are working in Texas, southern Arkansas, Louisiana, and Mississippi in that direction. We must always work a little ahead of the weevil, and must continue to work for a certain number of years in a region after the weevil has invaded that region. By and through this work we are in touch now, directly and indirectly, with about 100,000 farmers, who are farming differently from what they have ordinarily farmed, modifying their methods and diversifying their crops so as to have other things to fall back upon in case they fail in cotton. We have under Doctor Knapp 30 or 40 practical men who can reach the farmers and give them information as to how to do this work. Sometimes we furnish seed.

The farmer agrees to fall-plow, cultivate, and plant in accordance with our suggestions, and at the end of the year to give us definite figures as to how much he grew per acre on the portion cultivated in conformity with our suggestions and how much he grew on the other area grown under the old plan. This work has extended into Mississippi, and we have reached about 100,000 farmers, as I said a moment ago. It is simply demonstration work.

Another line of work has for its object the securing and developing of new types of cotton which will supplant the old types in the boll-weevil districts.

The CHAIRMAN. Resistant to the boll weevil?

Mr. GALLOWAY. No; they have little or no resistance, but they have other qualities which enable them to produce cotton despite the weevil; for example, early maturity.

The CHAIRMAN. You know we produced in the early days what was called the Mediterranean red wheat, which was a weevil resistant?

Mr. GALLOWAY. Yes. Down in Guatemala, where the cotton has been growing for thousands of years, and where the boll weevil has been for thousands of years, there is evidence of certain resistance, but it comes chiefly from the ability of the plant to make a crop before the weevil comes. The real harm to the cotton comes when the boll weevil becomes so abundant as to puncture many of the squares and bolls. When it becomes so abundant, you might as well let the cotton go. Most of these early cottons have laid on their bolls by July or August, so that the weevil does little harm. We have cottons in Texas which in staple and in every other way are superior to other types of cotton, and will mature their bolls very early in the season. These cottons have earliness, productivity, storm resistance, etc.

So much for the breeding work. In addition to this and the farmers' cooperative work, we have taken up several other problems. We have been studying the root-rot disease of cotton, which is a very serious one throughout the South, and we have also carried on extensive investigations in connection with studies of systems of farm management and the encouragement of diversification through the establishment of demonstration farms, which have cost nothing except the time of our experts who are looking after them. We

have 25 or 30 of those farms now in the Southern States. These farms are simply object lessons and must be money-making to have value. Those are the chief lines of work we are doing under this emergency fund.

The CHAIRMAN. It strikes me, Doctor, we ought to do away with all these experiment stations and devote all the money here to doing practically all the work they ought to have done but did not do.

Mr. LAMB. When are you going to find a cotton resistant to the boll weevil?

Mr. GALLOWAY. I do not think we shall find it.

The CHAIRMAN. It runs away in order to fight another day. It gets out of the way whenever you attack it.

Mr. GALLOWAY. This fall I was in Texas, and we had a meeting in Waco, and we had at that meeting about seventy or eighty farmers from Texas, Oklahoma, Arkansas, and other Southern States. There was present also a representative of the railroads. He came for information, but he had gathered statistics of cotton from the chief boll-weevil districts of Texas, along the Texas Central Railway. This gentleman read the names of towns and the number of bales of cotton sent from each for the past four years. The figures indicate that the first year the weevil strikes a place the farmers lose courage, but later they take heart and then produce more cotton than they did before the advent of the weevil.

The CHAIRMAN. You attribute that to improved methods?

Mr. GALLOWAY. Yes, sir.

Mr. FIELD. Don't you think you are laying too much stress upon these improved methods and cottons, and lose sight of the fact of different seasons, year after year, in their effect upon the boll weevil? Do you claim as to this year, which was favorable to the boll-weevil section, that that improvement was due largely to improved seed and methods of cultivation and the adoption of early maturing varieties? Do you attach more importance to that than the season that prevailed and the early drought?

Mr. GALLOWAY. The seasons were excepted. In some sections they had one thing and in others they had another kind of weather.

Mr. FIELD. Up along the Brazos and many other sections of central Texas the season was a favorable one—that is, it was a dry, early season, and the boll weevil did not develop as rapidly, owing to the drought.

All the cotton had an opportunity to develop more rapidly under those conditions, and it attained most of its fruit by reason of its not being assailed by the boll weevil. While I agree that much is due to early varieties and cultural methods, yet I am afraid you are attaching too much importance to those things to the exclusion of the season that prevails. I believe if we had had a wet June in spite of all our efforts we would have lost all our crops.

Mr. GALLOWAY. Several years ago I was in Texas and we had a meeting of the farmers, and it was a very enthusiastic meeting, as to what had been accomplished by cultural methods and so on. We had a good chairman and he was trying to bring out the advantages of the work he was doing and it was sort of a lovefeast. Everybody was saying what good had been accomplished by these new seeds and by these cultural methods. Along in the afternoon one farmer

got up and said he had listened with great interest to the talk; "but," he said, "gentlemen, I think you have forgotten one thing and I want to introduce a resolution that we thank the Good Lord for a good season that has enabled us to grow cotton." Of course there is something in that. But taking the average and following the country up where the weevil has appeared they are getting back their nerve, and if they do not grow cotton they are growing something else.

The CHAIRMAN. Do you attach credit to the experiment farm?

Mr. GALLOWAY. Yes.

The CHAIRMAN. Has the boll weevil crossed the Mississippi yet?

Mr. GALLOWAY. No; but it has reached points within 20 miles of the river.

The CHAIRMAN. Do you know whether it has gotten in the Kansas district?

Mr. GALLOWAY. No; it has not reached Kansas.

Mr. CANDLER. I was going to ask whether it had appeared in Mississippi?

Mr. GALLOWAY. I had a letter from an officer at the experiment station, and they are making great efforts to prevent its introduction—

Mr. CANDLER. Do you think it would be advantageous to enlarge your operations in this line as to the experiment farm?

Mr. GALLOWAY. You mean as to the demonstrative work?

Mr. CANDLER. Yes.

Mr. GALLOWAY. Yes; I believe it would be an advantage. I may say that the Southern Educational Board investigated this work last year and looked into the method of reaching the farmer, and they were so well satisfied with it that they are putting \$25,000 into the work this year. That money has been spent by the board, but under the direction of Doctor Knapp.

The CHAIRMAN. I should think these new cultural methods should be adopted ahead of the weevil?

Mr. GALLOWAY. It is pretty difficult to get them adopted ahead of the weevil.

The CHAIRMAN. I should think that would be the greatest check to the weevil and that it would retard his march.

Mr. CANDLER. This proposed plan you suggested a year ago in reference to the money to be applied to the seed proposition; have you now the facilities to do that kind of work?

Mr. GALLOWAY. Yes; we have the machinery all ready. We are spending now about \$37,000 in the foreign work and about \$63,000 in the other work. We have been gradually developing this machinery.

Mr. CANDLER. You could do both kinds of work right along together as you have been doing heretofore?

Mr. GALLOWAY. Yes.

Mr. CANDLER. And you have this amount of money you suggest, and you propose to do this special line of work; you can carry that work on and still do the general distribution as it has been done before.

Mr. GALLOWAY. Yes.

Mr. CANDLER. We had some controversy here the other day as to the exact amount expended for this general distribution. My recol-

lection is that there is only about \$63,000 that is invested in seed for general distribution.

Mr. GALLOWAY. Yes; it cost from \$132,000 to \$140,000 for all the work, including seed and everything.

Mr. CANDLER. The seed themselves cost about \$63,000?

Mr. GALLOWAY. Yes.

Mr. CANDLER. And then the work in connection with putting it up amounts to about \$132,000?

Mr. GALLOWAY. Yes; it will be a little bit more this year because seed costs more; it ranges between \$132,000 and \$142,000 every year.

Mr. CANDLER. I am willing, so far as I am concerned, to join thoroughly in this experiment work, but I must confess I am not willing to leave the other off.

Mr. LAMB. With this proposed work what becomes of the flower-seed distribution.

Mr. GALLOWAY. The flower-seed business would be left off the same as the other, of course. I might add that it would be advisable from time to time to introduce in this way the novelties in flower and vegetable seed the same as in the other things. There are novelties, of course, in flower seed and vegetable seed, just as valuable to introduce as some of these cottons and corns.

Mr. COCKS. I do not see that you have made any suggestion for the truck farmer. I suppose he would come in somewhere?

Mr. GALLOWAY. He would naturally come in on some of our work. I have only spoken of about one-third of the projects that we have. We have a truck project now, but it is applicable at this time mainly to the South Atlantic States. We are planning cooperative work with the experiment station at Norfolk, Va. The station has been established by the State of Virginia, but we are going to furnish men to carry on some of the work there.

Mr. SCOTT. It may be that the matter I wish to inquire about has been gone over, but I would like to inquire whether if the Congressional free-seed distribution was discontinued the Department would get an advantage in addition to the amount of money involved by reason of setting free more time and brain force on the part of valuable men in your Department, which now has to be directed toward the routine and details of work that really accomplishes nothing; would there be any advantage in addition to the financial gain?

Mr. GALLOWAY. I think there would be an advantage in that respect because necessarily we must maintain a corps of efficient men, experts in this matter. We have four or five and a corps of office men, and it requires, I may say, at least during the Congressional season, one-fifth or one-fourth of my time to look after these things. Of course it would require just as much or more of my time in this other work.

I perhaps might add that many Members who have handled these special seeds and plants through the Department understand that it has always been our policy in the Bureau to give specific and personal attention to these matters, so as to relieve the Members themselves of any embarrassment; that is, we have, I suppose, in the course of a year, many thousand requests for things that can not be furnished, but we always write a personal letter taking the responsibility and putting the responsibility on the Department for the nonfurnishing

of those things if they are things that can not be furnished. So it would be with this work. It would be largely a matter of personal correspondence between the Department's officers and representatives or cooperators who might be referred to us by the Members, and we have never yet had an instance—I do not recall an instance—of a complaint from anyone in the country who has thought that he has not been fairly treated by the Department or by the Member when these things were referred to us. So if there are any doubts in your mind as to that matter I want to say that as long as I am charged by the Secretary to look after the work I trust I shall be able to do so to the satisfaction of the Members, as I have tried to do with this other matter. I have tried to handle that work in such a way that it would bring credit to the Department and no trouble to the Members.

MR. CANDLER. You have always been exceedingly kind to us on that line, I am sure.

MR. HAUGEN. If this plan of yours were adopted, it would practically do away with the distribution of common seed?

MR. GALLOWAY. Yes.

MR. HAUGEN. Flower and garden seeds?

MR. GALLOWAY. Yes. As I indicated a while ago, the first thing about it would be the abandonment of the free distribution of ordinary seed; and, in the second place, it would be the spreading out or the development of the work we are doing now under what we call Nos. 2 and 3—that is, disseminating rare and uncommon things grown in this country and disseminating rare and uncommon things secured abroad.

THE CHAIRMAN. And third, the Department thinks it would be better for the whole country than this free seed distribution?

MR. GALLOWAY. Yes.

MR. HAUGEN. And do I not understand that to carry out this plan and also the general distribution of seed it will be necessary to increase the appropriation \$132,000?

MR. GALLOWAY. Yes; to continue to send out vegetable seed it would require about that amount in addition to the estimates as furnished to the committee. In other words, \$232,000 to develop the plan we suggest, and then it would take \$132,000 additional to continue this free distribution of seed.

MR. HAUGEN. I understand your proposition is to take \$132,000 that has been used for the general distribution of seed and appropriate that for rare and valuable seed?

MR. GALLOWAY. Yes, sir. Of course this should be understood. If we had the \$132,000 to be set off by itself and could not use both forces, both organizations, it would take a good deal more, but having both I am safe in saying we could continue to do the same work for \$132,000.

MR. HAUGEN. Your proposition, as I understand it, is to enlarge on a certain line and cut off the other?

MR. GALLOWAY. Yes.

MR. HAUGEN. Can you furnish an estimate of the duplication at the experiment stations, how much would be duplicated?

MR. GALLOWAY. There would be very little duplication. Some of the stations are now working on the improvement of corn, but they are restricted to State lines. Some stations are working on alfalfa.

None of the stations of the South are doing work of the kind we have proposed.

Mr. HAUGEN. Do you mean to say the cotton-growing States are not giving attention to the growing of cotton?

Mr. GALLOWAY. They are giving attention to cotton, but it has been largely in the matter of fertilizers. None of them have done any special work in the breeding of cotton and the dissemination of different types of cotton within their respective States.

Mr. HAUGEN. And nothing has been done as to the cotton-boll weevil?

Mr. GALLOWAY. The States themselves have expended most of their energy and money appropriated in quarantine work and in work of that character.

Mr. SCOTT. Do you know, Doctor, how much in the aggregate all the cotton States appropriated to fight the boll weevil this year?

Mr. GALLOWAY. I can not answer that question.

Mr. SCOTT. Can you mention the appropriations made by some of the States?

Mr. GALLOWAY. Texas, I do not think, has appropriated anything. Louisiana has a State pest commission, and it has an appropriation of, maybe, \$15,000 or \$20,000. I do not recollect just how much it is.

The CHAIRMAN. Texas has no appropriation at all for that purpose?

Mr. GALLOWAY. No; no special appropriation for that.

Mr. SCOTT. In other words, the cotton States have practically turned this whole thing over to the General Government?

Mr. GALLOWAY. That is it.

Mr. FIELD. We could not make an appropriation for that purpose in Texas under our constitution.

The CHAIRMAN. In your investigations and studies have you ever met with anything to lead you to believe that there was a seed trust on the part of the dealers?

Mr. GALLOWAY. No, sir. We have always been able to get our seeds where and from whom we wanted them, and we never saw any evidence of a combination to prevent the Department from getting seed. I do not see very well how there could be one.

The CHAIRMAN. Then you say there is no combination that results in an increase of prices?

Mr. GALLOWAY. No, there is not.

Mr. COCKS. Where are these seeds put up in packages?

Mr. GALLOWAY. Right here in Washington. Come down and we will show you. They are all packed right here under the supervision of our own men.

Mr. LAMB. If this reform measure, so to speak, were carried out, what would become of the nice boxes of bulbs that we get now?

Mr. GALLOWAY. They would go out with the other things, except that where we are introducing new bulbs, growing them in this country, opportunity would be given to have them tested in other localities.

Mr. FIELD. What appreciation is shown by the people in response to all this general distribution of seed? What interest is manifested by reporting to the Department the results?

Mr. GALLOWAY. Out of the entire number of packages of seed that we send out I presume that of actual reports we would not get more than one-tenth of 1 per cent. I kept a record last year for two

months of the number of actual reports that came to us. A great many, of course, go to Members of Congress.

The CHAIRMAN. I do not get five such reports a year.

Mr. GALLOWAY. We get, though, from the 1st of December until the 1st of May a great many requests for seeds. We average about 1,000 requests a day during the busy season. I am referring now to the requests that do not come from Members of Congress at all. We have to file those away, because we are now sending out everything we have for distribution through the Members. We used to try to give those requests coming directly to us from the people wanting the seed attention, but we can not do it now.

Mr. FIELD. In connection with your suggestion there, would it not be well to provide that where the seed under the new arrangement was sent out and no report made that those parties not making any report on it should be stricken from your list for further distribution?

Mr. GALLOWAY. That could be made a provision, but it would hardly be necessary to incorporate it in the act.

Mr. COCKS. This is on the new proposition, I understand?

Mr. FIELD. Under the new proposition. If they do not report, the benefits are lost to the Department, and they ought not to be included in any subsequent lists for distribution.

Mr. GALLOWAY. We have received probably 85 per cent of reports on all our cotton work. In every package we have sent out in the South of these new varieties we have sent a memorandum showing what we claimed for the cotton, and we send a card for the recipient to fill out his name and address, and we receive many valuable returns and reports through those names.

The CHAIRMAN. You say, Doctor, that you receive a thousand requests a day from now to the 1st of May?

Mr. GALLOWAY. Yes, sir.

The CHAIRMAN. It seems impossible that you would receive that many.

Mr. LAMB. Does not that show that these people appreciate the free seed distribution?

The CHAIRMAN. It shows they like to get something for nothing.

Mr. GALLOWAY. The fact of the matter is that the seeds that the Members get do not begin to go around. Mr. A. gets seeds and Mr. B. hears of it, and he writes to the Member for some seed, and the Member replies that his supply is exhausted, and then Mr. B. probably writes to the Department. As I have said, we have no supply with which to furnish such requests. We reserve each year one-sixth of 1,000,000 packages.

Mr. BROOKS. I wish we could have opportunity to study these suggested plans of Doctor Galloway. I wish we could have some kind of an outline. I understand you have a good many projects there, or plans, that you have not mentioned?

Mr. GALLOWAY. Yes, sir. I only brought up with me this morning ten or fifteen of these, and we have altogether about seventy-three of them.

Mr. HAUGEN. The money appropriated for general distribution of seed is about \$1 to every \$72 recommended for appropriation by this committee, or \$1 for every \$6,400 appropriated by Congress. Now, in view of the fact that you get a thousand requests a day, do you

think it would be practical to cut out the \$132,000 appropriation, which is \$1 out of \$6,400, the total appropriated by Congress?

Mr. GALLOWAY. For the last three or four years we have simply filed those requests; we have not been able to comply with them.

The CHAIRMAN. And the Department does not take the dollars and cents view of it at all; it takes the view of what is the best for the whole country.

Mr. GALLOWAY. Yes; it looks to what is best for the whole country. We must necessarily take that view. We appreciate the position of Members of Congress in reference to these seeds. That is well understood, but if I am asked the direct question of course I must answer it in a direct way. That has been the attitude of the Department. The Secretary has stated it several times. We have no way of telling whether this ordinary distribution does good or not. I have no way of telling that, although I have been studying the subject for seven years. I may have my opinion, but that opinion would not be worth as much as the Members' opinion where the seed goes.

Mr. SCOTT. The mere fact that the people want the seed and ask for it does not necessarily lead to the deduction that the country is benefited by the distribution?

Mr. GALLOWAY. No, sir; it is generally understood now, owing to the fact that this has been going on fifty years, that they can write a postal card to the Department and get seed free, and so a great many requests are sent directly to the Department.

Mr. BROOKS. In that connection, the requests for maps are growing very rapidly.

Mr. CANDLER. Although you have not complied with those requests, they still continue to come in every year?

Mr. GALLOWAY. Yes; they come every year.

Mr. CANDLER. Would it be too much trouble to put on an appendix, summarizing your plans? You could do that when you revise your statement.

Mr. GALLOWAY. I can do that in three or four lines for each project.

(Thereupon, at 12.15, the committee adjourned.)

COMMITTEE ON AGRICULTURE.

Washington, D. C., Tuesday, January 8, 1907.

The committee met at 10.30 o'clock a. m., Hon James W. Wadsworth in the chair.

FOREST SERVICE.

The CHAIRMAN. Gentlemen, we have before us to-day Mr. Pinchot, whom I have asked to come first because he will be called West in a few days on account of business connected with his bureau, and I think we had better hear him before he goes. The three main points that I think you had better touch on, Mr. Pinchot, are, the appropriation for the new testing building; then something about your receipts from your forest reserves, and then the loan of \$5,000,000 that you are going to ask for. You will remember, gentlemen, that

last year Mr. Pinchot promised us if we would give him a million dollars a year it would be only a few years before he would make the forest reserves self-supporting, and he has taken one good step toward that end already. I think it will be of interest to the committee to hear about it.

STATEMENT OF MR. GIFFORD PINCHOT, FORESTER, UNITED STATES DEPARTMENT OF AGRICULTURE.

Mr. PINCHOT. Gentlemen, substantially the situation, with reference to the forest reserves, is as follows: When they were transferred from the Department of the Interior to the Department of Agriculture, two appropriations were consolidated, making together, in about equal amounts from each bureau, \$850,000. At that time the receipts in the Interior Department from forest reserves were \$59,000. The transfer was made in February. During the year of the transfer we had the reserves for five months, and the work was almost wholly in organizing and getting ready for what was to come. The receipts of the year were about \$75,000. Then you gave us the right to charge for grazing. We began to get things organized, and the first year, which ended the 30th of last June, gave us, approximately, \$767,000. During the year we spent \$1,193,000. At the end of the year we had left over, after paying all expenses, including 10 per cent given to the States, \$400,000, as a nest egg. In other words, at the end of the first year after the transfer we had a balance of \$400,000 to our credit.

The CHAIRMAN. On that question of 10 per cent, tell the committee what that was?

Mr. PINCHOT. That was a clause that was inserted in the bill in the Senate, providing that 10 per cent of all the receipts from forest reserves should go to the States in which the reserves lie, for the use of the counties, to be spent for roads and schools.

The CHAIRMAN. In view of the fact that these lands were withdrawn from the assessor's roll?

Mr. PINCHOT. Precisely; and the returns will be so large that a provision was inserted in the bill that no more should be paid than a sum equal to 40 per cent of the receipts of the county from all other sources. We have not reached that yet, but we shall before very long.

The CHAIRMAN. Have you any figures which will show the largest amount paid under that provision of the act to any one State?

Mr. PINCHOT. I have not the exact figures—about \$12,000.

The CHAIRMAN. To what State?

Mr. PINCHOT. To Colorado, if I remember rightly. I am sorry to say I forgot to bring those figures with me, but the largest amount was about \$12,000. We had, as I said, \$400,000 in the Treasury at the end of the last fiscal year. We had spent \$1,193,000; deducting the \$400,000 from that gave us a net expenditure of approximately \$700,000. So that, actually, the first year we had a balance of reduction in the appropriation. We had spent less money. If we count the money we had in the Treasury when the year was over, we spent less money the first year after the transfer than the year before.

Mr. BROOKS. You do not mean that, do you, exactly; but, as I understand, you used less money of the General Government?

Mr. PINCHOT. Less money of the General Government. I did not state that just as I should have.

Mr. BROOKS. You have spent very much more?

Mr. PINCHOT. We had spent very much more.

Mr. BROOKS. But a portion of what you had spent had come in from the income of the reserves?

Mr. PINCHOT. Yes; so that the charge upon the Treasury was less for the first year.

Mr. SCOTT. This \$400,000 reverts to the Treasury, I presume.

Mr. PINCHOT. It was in the Treasury, but under the terms of our appropriation we have a right to use the money that comes in from forest reserves for expenses.

Mr. SCOTT. As a revolving fund?

Mr. PINCHOT. As a revolving fund. That provision was inserted in the bill last year, the stipulation being that beginning in 1908 the Secretary of Agriculture should report to Congress, in the Book of Estimates, exactly what he proposed to do with the money, so that Congress could have a chance to refuse it and make any changes it chose. This year the receipts will run up to about \$1,250,000.

The CHAIRMAN. You mean the fiscal year ending June 30, 1906?

Mr. PINCHOT. 1907. I have here a statement of the receipts of the first half of the present fiscal year up to the close of business yesterday, which shows that we had received up to that time \$365,272.98. That does not look like a million and a quarter. The matter is explained in this way. The grazing rights, which are by far our most important source of revenue now, last year amounted to \$590,000. That revenue does not begin to come in until after the first of January. I have expected for the fiscal year \$600,000 from timber cutting and a little more than \$600,000 from grazing.

The CHAIRMAN. Is the grazing paid for in advance?

Mr. PINCHOT. Grazing is paid for only at the beginning of the grazing season.

The CHAIRMAN. How does it come in in January?

Mr. PINCHOT. It begins shortly after January. The men begin to put their cattle in some of the southern reserves early, and pay before it goes in.

Mr. FIELD. What is the charge that is made by the Government for the privilege?

Mr. PINCHOT. We make a charge per head. We charge from 5 to 8 cents for the summer grazing season for sheep, and 25 to 35 cents for cattle and horses.

Mr. CANDLER. For what length of time?

Mr. PINCHOT. It may be for six, seven, or eight months.

Mr. BROOKS. What other sources of income are there for the Bureau from the reserves other than timber and grazing fees?

Mr. PINCHOT. The other sources are comprised under what we call privileges—that is, the right to use the forest-reserve lands for any one of very many purposes. For example, if a power company wants to come into the reserve we make it pay a fixed sum per mile for its pipe lines or transmission lines, and a fixed sum per acre for the land its power house occupies, and charge for what we call conservation,

The CHAIRMAN. That is the water supply, is it?

Mr. PINCHOT. We can not charge them for water, because the water was guaranteed by the Government to the States, but we maintain

their watershed for them. They would have to go out of business if that watershed were destroyed. We have been in negotiation with them for the last six months.

Mr. BROOKS. That, of course, is only just starting?

Mr. PINCHOT. That is only just starting.

Mr. BROOKS. How much of a figure is that?

Mr. PINCHOT. So far this year we have taken in only \$8,000 for privileges.

Mr. BROOKS. Did you mean that the electrical power transmission proposition was only an example, or is that the main one?

Mr. PINCHOT. No; it is not the main one yet. It will be the main one. The main ones so far are hotel privileges, road houses, pastures, and so on.

Mr. FIELD. Do you charge for hunting and fishing privileges?

Mr. PINCHOT. No; they are in charge of the different States. I think this charge on the water power will amount to a good deal before very long.

Mr. BROOKS. How are the power companies feeling about it?

Mr. PINCHOT. I believe they do not want to pay the money if they can help it, but we are entirely satisfied that we have a legal right to make the charge, and we are approaching an agreement with them.

Mr. SCOTT. What sort of a basis do you take upon which to estimate the proper charge for the power companies?

Mr. PINCHOT. We are getting at it like this. We take a plant which gets a maximum of service from the reserve—that is, has its power house inside of the reserve, with pipe lines and most of its transmission lines—and we fix a charge, and where we give less to another power company we reduce the charge correspondingly. The measure decided on is the horsepower developed at the wheel, as shown by the company's meter. So they pay for exactly what they get. We are now considering a charge of 20 cents per thousand kilowatt hours, which is approximately equivalent to 75 cents per horsepower per annum.

The CHAIRMAN. 75 cents?

Mr. PINCHOT. 75 cents per horsepower per annum, and developed horsepower in that country is worth from \$25 to \$125, and in some cases it is worth \$150.

The CHAIRMAN. Per year?

Mr. PINCHOT. Per year. In the Reclamation Service, in one case that we know of, there is a charge of \$20 per year per horsepower. There they need the water, which is different.

Mr. CROMER. What would happen with a power plant if it did not have a plant located on the reservation?

Mr. PINCHOT. We should very greatly reduce the charge. We are trying to make them pay for just what they get.

Mr. SCOTT. Do you make a uniform grazing charge?

Mr. PINCHOT. No; we adjust the grazing charge to the value of the range, the distance from the market, and so on.

Mr. SCOTT. And those contracts are made through your office here in Washington, are they?

Mr. PINCHOT. They are made by the man in the field, in order to avoid delays. The Secretary of Agriculture determines how much stock should go in each reserve. That has been decided for the next

ground for nearly all of the reserves. Then the officer in charge on the year is notified and he consults with the local people.

Mr. SCOTT. What is his title?

Mr. PINCHOT. Forest supervisor. He consults with the local people and reaches an agreement as to who has the right to have stock in the reserve. We have been able in this way to put an end absolutely to all range controversies in the reserve, and the vast majority of the users of the reserve range are entirely satisfied.

Mr. SCOTT. How do you apportion the range and separate one man's flocks or herds from another?

Mr. PINCHOT. We inquire how long a man has been in the habit of using a range first. The man who has customarily used it is considered first. The small man who is making a home is given the preference over the large man who is simply in it for profit. We have had a great deal of controversy about that in the past, and our position has always been that we put the livelihood of the small man ahead of the profits of the big man.

Mr. SCOTT. I simply did not understand exactly what you substitute for a fence to divide the range among the various lessees?

Mr. PINCHOT. There are two principal classes of stock—sheep and cattle. The sheep in the West are run always in herds, and the herder goes with each flock and takes it where he likes. We have no trouble in dividing the range, so far as the sheep men are concerned, giving each sheep man his own range, and the herder can keep the sheep where he pleases. Cattle can not be herded in that way. They have certain natural runways of their own. You take account of the stock that has been in the habit of using a certain part of the reserve, and it will be found there next year when they are turned out. We have no difficulty whatever then in distributing the stock in the reserve.

Mr. FIELD. Inasmuch as a charge is made per capita, there can be no exclusive privilege to anyone over a certain territory?

Mr. PINCHOT. There can be for sheep but not for cattle. There can be also, in a sense, for cattle, because of this habit of the stock of sticking to country they are fond of.

Mr. BROOKS. Are you sure?

Mr. PINCHOT. Yes, sir.

Mr. BROOKS. Coming back to this electrical power proposition, a company generating 10,000 horsepower would pay you \$75 a year?

Mr. PINCHOT. Yes, substantially.

Mr. BROOKS. And the larger companies ten times as much?

Mr. PINCHOT. They would pay in proportion. The Edison Electric Company of southern California, which is the company that has been using most of the appropriations from the special bill that was passed last year, would pay on their plant, already developed, about \$26,000 a year. On the other hand, their net surplus, after paying running expenses and interest on all obligations, was about \$500,000 last year. It is a very small percentage.

Mr. SCOTT. In the matter of the forest timber cutting, do you scale the timber after it is cut?

Mr. PINCHOT. We scale the logs after they are cut, and before they are moved.

Mr. CANDLER. What is the character of the timber that is permitted to be cut?

Mr. PINCHOT. Mature timber, which of course differs very greatly in different places. Sometimes a tree may be mature at 6 inches in diameter. At other times it will not be mature at 3 or 4 feet. That little map shows the location of the reserves through the West. We have every character of forest, and every condition of forest, young and old timber, dead and live, and burned and green, and so on.

Mr. CANDLER. As this timber is cut away is there any effort made to renew it?

Mr. PINCHOT. We take very great care to see that in every case enough seed trees are left to insure the perpetuation of the forest as well as to protect all the younger timber. That is our principal task in regard to the timber cutting.

Mr. CANDLER. It is not permitted to the point of devastation?

Mr. PINCHOT. Absolutely not.

Mr. SCOTT. What provision is made, under the law, for homestead entry on the reserve?

Mr. PINCHOT. Homestead entry was suspended entirely on the forest reserves until last year. At the suggestion of the Department, Congress passed an act (act of June 11) which provided that any land found to be agricultural in character might be opened to homestead entry as soon as that character was established. It had been charged by the opponents of the forest reserves that we were withdrawing from use thousands or millions of acres of good agricultural land that the people were clamoring for. The bill was passed, and we have had so far about 2,000 applications for homestead entry in the reserves, many of which, of course, are based on the desire to get the timber, even now; but we are opening a considerable proportion of the land applied for to homestead entry.

Mr. BROOKS. The great majority of these two thousand, then, are favorably considered?

Mr. PINCHOT. I should say not the majority. I should say less than half.

Mr. SCOTT. Do you consider each homestead application as an individual case?

Mr. PINCHOT. We make a personal examination on the ground in every case.

Mr. BROOKS. What is the usual reason for refusing the applicant? Because it is timber land?

Mr. PINCHOT. Because he wants the timber instead of the homestead.

Mr. LAMB. Does he say that?

Mr. PINCHOT. No, indeed; but we go on the ground and we find a valuable crop of timber.

Mr. CANDLER. And very little agricultural land?

Mr. PINCHOT. Exactly. We have had a rather interesting case in Montana. It was desired to have a forest reserve opened to entry there, and there was exceedingly valuable timber on it. We declined to open it, and shortly afterwards we sold that timber for over \$4,000.

The CHAIRMAN. How much to the acre?

Mr. PINCHOT. There were several hundred acres of land. They would have got timber worth about \$80 per acre if we had allowed the land to be homesteaded, and the decision of the Service was that we were perfectly willing, if that was agricultural land, to consider

agricultural entry upon it after the timber had been removed, but we could not give large bodies of marketable timber as homesteads.

The CHAIRMAN. How do you arrive at the number of cattle to be placed on any range?

Mr. PINCHOT. In two ways. We ascertain what stock has been running there in previous years and compare that with the condition of the range. We find that the regulation of the range as we are doing it very largely increases the carrying capacity.

Mr. BROOKS. You think that is demonstrated?

Mr. PINCHOT. Absolutely.

Mr. BROOKS. In other words, under the administration of the Service a given area will increase its carrying capacity from year to year?

Mr. PINCHOT. Without question.

The CHAIRMAN. Up to a certain point?

Mr. PINCHOT. Yes, sir; up to a certain point.

The CHAIRMAN. How do you prevent the putting on of more cattle than the agreement calls for?

Mr. PINCHOT. If we had any reason to suspect fraud we would count a man's stock, on or off; but a more powerful reason than that comes from the grazing fee. Every man pays now for his stock in the reserve, and it is to every man's interest, therefore, to prevent his neighbor from getting in a lot of extra stock that he does not pay for, and thus damaging the value of the range to the man who does pay.

The CHAIRMAN. They keep tab on each other, as it were?

Mr. PINCHOT. They keep tab on each other, and very effectively.

Mr. BROOKS. The reason for the increased capacity of the reserve is not because of anything you are doing to the reserve, but merely due to the fact that you are preventing a continuation of previous over-grazing?

Mr. PINCHOT. That is all. We are just getting ready to take up, practically, the improving of the ranges.

Mr. BROOKS. If it will not interfere with your trend of thought, there is another matter I wish you would discuss for a moment if you will. What are you doing with regard to mineral entries on the forest reserves?

Mr. PINCHOT. We find in the case of mineral entries, as we find with the homestead entries, that a certain proportion are bona fide and a certain proportion are made for other reasons—usually for the timber.

Mr. BROOKS. How do you test the bona fides?

Mr. PINCHOT. We make a personal examination on the ground.

Mr. BROOKS. By whom?

Mr. PINCHOT. Either by the supervisor or experts from the Geological Survey, as the case may require.

Mr. BROOKS. What elements enter into the bona fides? Do you mean that the quantity of mineral showing is a criterion?

Mr. PINCHOT. The decision of the Interior Department is that in the case of a mineral entry, before the bona fides are shown, there must be evidence of minerals sufficient to warrant a reasonable man in developing it.

Mr. BROOKS. That is the decision of the courts. Do the forest rangers determine that?

Mr. PINCHOT. The forest ranger can determine that in many cases, because quantities of mineral entries, in the first place, are made on lands that are not mineralized at all. For instance, a man wants to keep a saloon near a lumber camp. That is a very common case. There is one case in California where a man has more than 250,000 acres of contiguous placer claims. We know, without any question, that the man is entering these claims for the timber, because the area is in one of the best timber belts of the forest reserve. In that case we have to fight the entries. We get a man from the Geological Survey and our experts, and we send them there and have a personal examination made on the ground to see whether there is a reasonable possibility that the land could be taken for the mineral.

Mr. BROOKS. I should think there would be great danger along that line, because it is a pretty difficult question to determine the bona fides where a mineral location is made.

Mr. PINCHOT. It is an exceedingly difficult question, or, rather, it would be if it were not for the single matter of development. Most of the fraudulent claims that we have to deal with are not developed. Where a man is making a bona fide attempt to develop a mine we do not interfere with it, but most of them are merely locations, and they do nothing else.

Mr. BROOKS. A lot of fellows who make locations have no means to do any development. I have had a good deal of trouble lately in connection with that matter, and that is why I asked the question. A specific example came to my notice a short time ago in an area where there have been, as I understand, a group of claims held up, and entries refused, and very good mines have been developed.

Mr. PINCHOT. That I do not know about. Where is it?

Mr. BROOKS. I will tell you about it some time. The practical notion that is running in my head is this, that these men have kind of second sense about it, and on a very slight showing of mineral that really would not apparently justify an engineer, and a showing which most engineers would refuse, some of these old fellows who have not a cent to their names, and who are simply grubstaked, will keep on year after year, and by and by will develop very good mines. That is the history of mining in many places.

Mr. PINCHOT. That is perfectly true. On the other hand, there are a vast majority of those claims that do not show on their faces that they are good claims.

Mr. BROOKS. I suppose that is so.

Mr. PINCHOT. There may be some one who has bought timber from us, or we may have advertised certain timber for sale, and some fellow thinks there is a chance for him to hold up the purchaser, and he therefore locates a lot of mineral claims in the timber. Or there may be a water hole, and this man locates a placer over the water hole; also, the saloon proposition is very common, and so on. We have as a rule very little difficulty in determining by personal examination whether the thing is fair or not, and of course where there is any doubt it is resolved in favor of the man who wants the claim.

Mr. SCOTT. In case of an adverse decision there, which the claimant desires to appeal, what are his rights?

Mr. PINCHOT. He appeals to the Secretary of the Interior. We can not decide the case at all. What happens is that the Secretary of the Interior refers to the Forest Service for a finding of facts, we

report what we find on the ground, and the decision rests with him. We have nothing to do with the title in any form.

Mr. BROOKS. At present there is no way of appealing from the Secretary of the Interior to the courts?

Mr. PINCHOT. None.

Mr. BROOKS. There is a bill now pending for that purpose.

Mr. PINCHOT. Is there? I did not know that.

The CHAIRMAN. A bill now pending for what purpose?

Mr. BROOKS. To give the right of appeal from the Secretary of the Interior, on all land findings adverse to the applicant, to the courts.

The CHAIRMAN. What courts; the State courts?

Mr. PINCHOT. That is Mr. Hepburn's bill.

Mr. BROOKS. It is according to the jurisdiction, but I think his bill uses the term Federal courts. The general mineral law gives the State courts concurrent jurisdiction, but Hepburn's bill—

Mr. PINCHOT. It organizes a special land court, or appellate land court, and then there is an appeal from that to the Supreme Court.

Mr. BROOKS. That is right.

Mr. LAMB. Do you have any trouble with squatters?

Mr. PINCHOT. We are troubled with squatters very little, because where a man wants to build a bona fide home, we want to help him, and we have avoided, everywhere we possibly could, any interference with the bona fide settlers.

Mr. BROOKS. I have one other question I would like to ask in regard to the power matter. Has the right of the Department to levy this tax for the transmission of electrical energy over the reserves been challenged?

Mr. PINCHOT. It has been challenged by the companies, in briefs which they have submitted, and which are about to go, I think to-day or to-morrow, to the Attorney-General, with briefs from the Forest Service, showing our views; but we believe there is very little doubt—

Mr. BROOKS. But thus far, up to this time, you have had no opinion from the Attorney-General?

Mr. PINCHOT. We have had an opinion in an almost precisely similar case, but not in this specific case.

Mr. BROOKS. That is, an opinion on the grazing fee.

Mr. PINCHOT. No; it is still another case.

Mr. BROOKS. And as the law is at present constituted, I believe there is no way of getting into the courts on that question either?

Mr. PINCHOT. None.

The CHAIRMAN. Proceed.

Mr. PINCHOT. I wish to make just one more statement about the receipts. We came up, the first year that we had complete control of the reserves, with nearly \$700,000. We are going to add about half a million dollars more to the receipts this year, and my judgment is that we can keep adding at least half a million a year to the receipts, simply by the prosecution of the work as now planned.

I have told the committee that in five years from the time of transfer we would take the whole charge off of the Treasury, and I can say that I have asked for \$100,000 less this year than I did last year. In the next three years I propose to reduce the estimate to nothing.

It would be, for example, \$900,000 this year, \$700,000 next year, \$400,000 the following year, and the year after that no appropriation; and I fully believe we can make the Service self-supporting at that time, as I said we could. But there is one very serious obstacle. We have got money enough to run these reserves, but we have absolutely no capital with which to provide the means for developing them. They are precisely like farms without agricultural tools. We are handicapped constantly for lack of the commonest conveniences that every man would have on his own property. For example, we have no telephones and very few trails. Our men are held up for days at a time, even for lack of bridges. A man gets up in the morning, and he may have to spend half a day hunting his horse, because we have no pasture fences. Our men are obliged in many cases to live in tents during the severe weather, because we have been entirely unable to put up cabins for them. In a word, we have not the ordinary necessities for administration.

We propose to ask, not that you should appropriate the money directly for that purpose, but that you should lend us the money and let the Forest Service pay it back. We have a property there that is worth—well, it is hard to guess at its value. We have nearly \$700,000,000 worth of standing timber, and the reserves as a whole are worth from \$1,300,000,000 to \$1,400,000,000, or something of that kind.

Mr. HASKINS. \$1,400,000,000?

Mr. PINCHOT. \$1,400,000,000, yes. It is an enormous property, more valuable than the property that is in charge of the Army and Navy together. The Navy has something less than \$600,000,000, and the Army is estimated at about \$700,000,000.

Mr. LAMB. How much, in square miles, does it cover?

Mr. PINCHOT. It covers about 127,000,000 acres, or 200,000 square miles. It is a good, big estate and there is no reason why it should not be entirely self-supporting. As an illustration of what we need, I have brought up here maps of a few of the reserves, showing the plans. I will, if I may, set them down in the middle of the table. These are maps of some of the forest reserves, showing the ordinary conveniences that we need.

The CHAIRMAN. What is this?

Mr. PINCHOT. It is the Santa Barbara Reserve in Southern California. 'We need telephones, rangers' cabins, fences, bridges, and so on.

The CHAIRMAN. How many acres are there in that reserve? Give us a description of the reserve.

Mr. PINCHOT. The reserve covers 1,000,000 acres. It is high, rocky, mountainous land, and as you can see from the contours it is excessively broken. It is largely covered with chaparral instead of timber; but while its timber value is comparatively small, its water value is enormous. A miner's inch of water is worth about \$5,000, and it is of absolutely vital importance to the people in that neighborhood that we should prevent fire on this reserve. We have 28 men on the reserve in the summer time and less in the winter, and they can not begin to cover it.

The CHAIRMAN. How many acres are there in it?

Mr. PINCHOT. About a million.

The CHAIRMAN. What is the length in miles?

Mr. PINCHOT. These [indicating] are townships of 6 miles each.

The CHAIRMAN. What is the scale of the map?

Mr. SCOTT. Each one of these is 6 miles square?

Mr. PINCHOT. Six miles square.

The CHAIRMAN. Count the miles in the length of it.

Mr. PINCHOT. There are 20 townships.

The CHAIRMAN. About 18, to the average.

Mr. PINCHOT. Well, yes. There are about 20 townships, and that would be 120 miles.

The CHAIRMAN. One hundred and twenty miles long. What are these indentations that enter into the outer boundaries?

Mr. PINCHOT. This piece [indicating] is an old Spanish grant.

The CHAIRMAN. To one individual?

Mr. PINCHOT. To an individual; yes.

The CHAIRMAN. An individual is owning it?

Mr. PINCHOT. Yes, sir. It was made before California came into the Union.

The CHAIRMAN. Is it the same over there at the end?

Mr. PINCHOT. Yes, sir.

Mr. LAMB. How big is the piece you have your hand on?

Mr. PINCHOT. Eight miles. There are a great number of Spanish grants all through Arizona and New Mexico and California. This is one of the best manned reserves we have, because of the enormous danger from fire, and the tremendous risk of bad fires to the people in the neighborhood. So we have 28 men. The average would give us about 5 men on that reserve. If I may break in there, I would say that if we had the forest reserves manned as they are in Prussia, instead of about 800 rangers, as we have in the summer time, and 600 in the winter, we would have 117,000 rangers; and instead of 90 supervisors in charge of the reserves, we would have 15,000.

Mr. BROOKS. Do you say you have 5 rangers?

Mr. PINCHOT. No. I say if this were an average reserve. We have 28 on this reserve. The average ranger's beat is about 200,000 acres, and the average supervisor's range is 1,412,826 acres.

Mr. BROOKS. How much can one man—a good, ordinary, active ranger—patrol reasonably well?

Mr. PINCHOT. What we are doing is to make a man patrol about 200,000 acres, and he can not do it decently; but it is the best we can do.

Mr. BROOKS. He can not patrol 50,000 acres?

Mr. PINCHOT. No; he can not; but we are doing the best we can. The reserves are ridiculously undermanned.

The CHAIRMAN. What is the result of that undermanning?

Mr. PINCHOT. The result is a double one. We have more fires and more trespasses. We have more trouble generally, more difficulty in controlling the grazing, than we would otherwise have, and we are able to use the reserves very much less.

Mr. DAVIS. Of what does the trespass consist, mainly?

Mr. PINCHOT. The most important is the sheep trespass. They steal a little timber, but not much.

Mr. DAVIS. The timber is not very valuable, is it?

Mr. PINCHOT. Yes. This reserve happens to have very little, but other reserves have enormously valuable timber.

The CHAIRMAN. Is there any grazing on that reserve?

Mr. PINCHOT. Very little. It is too valuable as a watershed to allow grazing. There is some grazing of cattle and horses, but none of sheep.

Mr. SCOTT. You do not expect, then, that this particular reserve will ever be self-supporting?

Mr. PINCHOT. Yes.

Mr. SCOTT. If it has no timber or grazing land how can it be?

Mr. PINCHOT. It will be self-supporting as a watershed, after a while, and even if it were not self-supporting directly, it is indirectly much more than self-supporting. Curiously enough, we get quite a revenue from this reserve for the bees.

Mr. SCOTT. Do you charge for the bees?

Mr. PINCHOT. No. A man wants an acre or two of land in the reserve for an apiary; we rent him the land and take a very small charge, and so we get a little revenue from the bees.

The CHAIRMAN. What is that village [indicating].

Mr. PINCHOT. It is called Frazier. We have made a considerable sale of timber. There is still some timber in this.

Mr. LAMP. What kind of wild animals are there?

Mr. PINCHOT. There are some deer and panthers and wild-cats.

The CHAIRMAN. That is not self-supporting?

Mr. PINCHOT. Not by any means.

Mr. SCOTT. In what respect could it be made more profitable by the development you speak of?

Mr. PINCHOT. The main needs we have are for roads, trails, and telephone lines. These dotted lines are telephone lines, and the little squares in there are the rangers' cabins, which are scattered all around.

Mr. SCOTT. Those are projected telephone lines?

Mr. PINCHOT. Those are projected telephone lines. They are the improvements that we need in the reserve. We make plans like this for the forest reserves, after careful examinations on the ground, showing just what is required.

The CHAIRMAN. Have you been over that?

Mr. PINCHOT. I have been in it, but I have never been over it. This is a very slow one to get over because there are exceedingly few trails, and it is a tremendously broken region of excessively steep slopes. It is almost impossible to travel. In addition, those steep slopes are covered with chaparral, and there is a great deal of it that a man can not force his way through at all. He can not go half a mile an hour through lots of it, on level ground. So that when a fire comes, unless you have trails there, you are helpless.

Mr. SCOTT. Does that chaparral burn green?

Mr. PINCHOT. It burns like tinder. It is resinous stuff, and it goes up like smoke. The worst fires we have are in country of that character. If a fire starts at the bottom of one of these steep slopes nothing except a heavy rain storm or a change of wind will stop it from flashing up to the top. A good many men are burned to death in that kind of country.

Mr. BROOKS. Do you charge now for the use of the reserve, to telephone companies, for long distance lines?

Mr. PINCHOT. We make that charge in the form of a guarantee every year to us that we can use the lines free for reserve business, and we do everything we can to help them come into the reserve.

Mr. CROMER. As a matter of fact, are there any telephone lines in this reserve?

Mr. PINCHOT. There is a telephone line, I believe, across this reserve.

Mr. BROOKS. There must be, from Santa Barbara to Los Angeles.

Mr. PINCHOT. I think there is a telephone line running here, although I am not sure that it does not go around; and I think there is one running clear across.

The CHAIRMAN. How are the lines marked there?

Mr. PINCHOT. They are marked by the land office surveys and we are putting up boundary notices on the trees everywhere.

The CHAIRMAN. Of a perishable nature?

Mr. PINCHOT. Yes.

The CHAIRMAN. They have to be renewed every now and then?

Mr. PINCHOT. Yes; we can not begin to put in anything permanent now. Mr. Scott has asked me how we could make more money out of the reserves by having better communication. This is a poor one to use as an illustration, but we could protect it better and allow some grazing here, because we would have better control of it. Our men would be in constant communication with each other and with the supervisor at Santa Barbara. We would be able to open up, by trails, regions in it where now we can not get at the timber because it is inaccessible. More of these bee men would come in if they could get through the country by trails, and we could cut a great deal more of the minor classes of timber.

The CHAIRMAN. What is there that attracts the bee man, or the bees, rather?

Mr. PINCHOT. The bees feed on the blossoms of various kinds of chaparral found there.

The CHAIRMAN. Those blossoms are only on the chaparral during a certain portion of the year, are they not?

Mr. PINCHOT. They last a good long time. They keep coming through the summer. There is also a good deal of sage there, white sage.

Mr. HENRY. Does it produce good honey?

Mr. PINCHOT. Very fine. We could sell a lot more timber if we had roads and trails by which the people could go up there to get it, and so on and so on.

The CHAIRMAN. Take a reserve like that: is there much trespassing along the edge of it?

Mr. PINCHOT. Not so very much. There is a little stealing of timber, and small things. The Mexicans there steal, but it does not amount to very much.

Mr. SCOTT. As a matter of fact, has it not been regarded rather as a conventional crime for those living near the reservations all along the Rocky Mountain region to take what they wanted or needed from the reserves.

Mr. PINCHOT. Absolutely. In the great majority of cases we are settling the trespasses made before the creation of the reserve as innocent trespasses.

Mr. SCOTT. Are they succeeding in creating a different sentiment?

Mr. PINCHOT. Very decidedly. We need this sort of development on every forest reserve. As Mr. Brooks said, it is ridiculous—I do not know that he said that—

Mr. BROOKS. I will say that.

Mr. PINCHOT. It is ridiculous to expect a man to patrol 200,000 acres of rough mountainous land, without trails, without fences, where the supervisor may not see his men or get in touch with them for months, because he simply can not get over it. Many times it takes a letter a week to get from the supervisor to one of his rangers, and no man can handle a piece of property favorably under those conditions. We ought to have telephone lines from the supervisor to every one of his men.

Mr. SCOTT. What sort of a checking system do you have, as a matter of fact, to give the supervisor of the men any assurance whatever that the rangers do not camp down in some convenient coulee and stay there?

Mr. PINCHOT. We have what I think is the most convenient system of inspection now used under the Government. We have taken 15 or 20 of our very best picked men, who are required to travel a large part of the time through these various forest reserves, go to the supervisor's office and examine the records there, and then go to the forest rangers in the field, finding out what the supervisor has ordered the rangers to do, and whether the rangers have done it. In that way we have been able to ascertain that about a third of the men who came over under the transfer are not suitable men, and they have gone—from a quarter to a third walked out.

Mr. SCOTT. Do the supervisors have a permanent office?

Mr. PINCHOT. Yes.

Mr. SCOTT. Are they expected to stay there?

Mr. PINCHOT. No.

Mr. SCOTT. The headquarters are in Santa Barbara?

Mr. PINCHOT. Yes; they are supposed to spend about half their time in the field.

Mr. LAMB. Are there many squatters in that territory?

Mr. PINCHOT. Not many—there are a few people—I do not suppose more than 50 all through.

The CHAIRMAN. How do they get a living?

Mr. PINCHOT. They are Mexican woodcutters. They are mostly Mexicans.

The CHAIRMAN. Are you trying to get them off, or will you let them stay?

Mr. PINCHOT. No; wherever a man is making an honest living in a reserve, we like to have him.

Mr. BROOKS. It helps the rangers, does it not?

Mr. PINCHOT. It helps the rangers very much.

Mr. SCOTT. You say they are Mexican woodcutters. Do they cut wood from the reserve?

Mr. PINCHOT. They get permission. We sell it to them at a very low price.

Mr. HASKINS. There is a good deal of distance there?

Mr. PINCHOT. Yes; but all the wood there is right there. [Indicating.] If they are going to have it, they must get it right in the reserve.

I was going to ask for \$5,000,000 first, gentlemen, to begin to do this improvement work and put our national forests in such shape that we can handle them, which is not the case now. I want to change that, and ask for \$2,000,000 in the present bill.

Mr. BROOKS. That is a direct appropriation?

Mr. PINCHOT. A direct appropriation, with this string to it, that the money shall be repaid in installments of half a million dollars a year, beginning in 1917.

The CHAIRMAN. And in the mean time shall it draw interest?

Mr. PINCHOT. Just as you like. I do not see why the Government should pay itself interest; but if you wish it, we will do it.

Mr. BROOKS. That is an exceedingly important proposition and I would like to know a little more about the immediate availability of it. Suppose, instead of a loan in this way, which you would feel yourself under obligation to repay, or the Forest Service would feel itself under obligation to repay, there should be a series of appropriations for this specific purpose—regular, ordinary, genuine appropriations. Congress would, under your statement, and under the practice, as it exists, make those appropriations knowing that the result was going to be that after a while the forest reserve, instead of being a charge, would be a source of income?

Mr. PINCHOT. Yes.

Mr. BROOKS. In that way this innovation—which some people would consider pretty dangerous—of loaning the money, would be obviated. Would it be feasible, in other words, for you to come to us with a proposition that, as fast as you could usefully apply it, we should appropriate for you, straight out, these moneys? For instance, you could not use \$2,000,000 in the next current year, usefully?

Mr. PINCHOT. Yes, sir; I can. I have all the plans made. I would like to show you what the plan is. Well, gentlemen, the plan, as made, foots up about like this. I have only brought the completed plans for nine reserves, but I could have brought twice as many just as well.

The CHAIRMAN. For instance, have you got the plans for that reserve?

Mr. PINCHOT. Yes; here they are.

The CHAIRMAN. Quote that first. Let us see how you figure it out.

Mr. PINCHOT. We have 28 men in the summer time, and we need 28 cabins, for which we estimate, complete, with stoves and windows, and with the necessary hardware, \$200 apiece.

Mr. DAVIS. You do not have to pay fancy prices for lumber.

Mr. PINCHOT. Then, we need 56 miles of pasture fence, at \$125 a mile. That sounded to me pretty high at first, but we are going to put up a 4-strand fence, with posts every 2 rods. The wire costs $4\frac{1}{2}$ cents to $5\frac{1}{2}$ cents, and we figure that on the average.

The CHAIRMAN. Do you mean the wire on the ground?

Mr. PINCHOT. No; at the railroad.

The CHAIRMAN. How much?

Mr. PINCHOT. $4\frac{1}{2}$ to $5\frac{1}{2}$ cents, and we will have to deliver the wire back through this country a great deal on pack animals. There is not timber enough in this case to build our fences of timber economically, and in this reserve the fences will probably cost a little bit more. I have not tried to differentiate it in the different reserves, but in this reserve it would cost about \$125 a mile, which I think is fair.

The CHAIRMAN. How do you subdivide that cost, in labor and material?

Mr. PINCHOT. We estimate 1,280 pounds per mile of 4-strand fence, or \$64 a mile for the wire—heavy wire. Posts, 2 rods apart,

160 to the mile. In some places we will have to pay for the posts. We will not have to pay for the posts in money but in transportation.

Mr. HAUGEN. Do you need 4 wires?

Mr. PINCHOT. Yes.

Mr. HAUGEN. Three wires make a good fence.

Mr. PINCHOT. Yes; but we thought while we were at it we had better put up a first-rate fence.

Mr. HAUGEN. The ordinary fence in the West is 3 wires.

Mr. PINCHOT. Yes; there is no doubt about that; but it struck us that while we could make it 3 wires we had better put up a strong fence.

The CHAIRMAN. Do the rangers have horses and cows?

Mr. PINCHOT. They have horses and cows. We want to make it possible for the married men to take their families up there in the summer time, and have a garden patch. We thought by making these posts fairly heavy we could make them 2 rods apart.

Mr. HENRY. What kind of a post—cedar?

Mr. PINCHOT. It depends on the reserve. In this country they would be of pine.

Mr. HENRY. That is not very durable.

Mr. PINCHOT. It is not very durable, but it is the best we have got. Then we count digging post holes at 5 cents each, and labor for stringing wire at \$30 a mile.

The CHAIRMAN. We pay \$15 a mile to put up a barbed wire fence, and furnish all the material.

Mr. PINCHOT. Yes; but the labor will cost very high back in that country, because we have to take the men in, in many cases. Ninety-three miles of boundary fence, at the same price, \$125.

The CHAIRMAN. What is that boundary fence?

Mr. PINCHOT. There are some places where we have trouble along the boundary, and we should have a fence to protect it. We need 232 miles of telephone lines and poles, at \$30 a mile. This reserve needs 40 miles of road, at \$400. We need 135 miles, anyhow, of trail, at \$75; 144 miles of fire line, at \$100—

Mr. HENRY. What is that?

Mr. PINCHOT. The fire line is a clear sweep 20 to 50 feet wide, which we run through the reserve at strategical points. We have had one heavy fire in the next reserve to this. Then we need one bridge at \$200; a total of \$71,910.

Mr. SCOTT. Would not the building of a cabin and a corral, giving a ranger an opportunity to bring in his family and have a garden and all that sort of thing, tend to inertia?

Mr. PINCHOT. Very much the other way.

Mr. SCOTT. I suppose the duties of these rangers would keep them pretty perpetually on the trail?

Mr. PINCHOT. They do in the daytime.

Mr. SCOTT. If a man is compelled to patrol 200,000 acres, he could not ride out very far and get back at night, could he?

Mr. PINCHOT. It depends on the situation. We have got to partol these reserves so a man can get back at night. We could not handle the thing otherwise. You can not keep the men traveling through that region with pack outfits, and keep them in touch with each other so that they can do much good. We have got to look forward to the time when we can increase the force so that a man will have his own

district and be able to ride over a part of it every day. I have not got the estimates for all the reserves as yet, but I have them for enough reserves to know about what they will foot up to, and improvements like these would cost \$6,292,000.

The CHAIRMAN. What is the cost, for instance, of that one [indicating]?

Mr. PINCHOT. \$75,540.

The CHAIRMAN. For improvements?

Mr. PINCHOT. For improvements on this reserve.

The CHAIRMAN. How many reserves have you altogether? Is that one below the average?

Mr. PINCHOT. No.

The CHAIRMAN. How do they foot up so much?

Mr. PINCHOT. We have something over 100 reserves, at \$50,000 apiece. That would be \$5,000,000. This is considerably over the average.

The CHAIRMAN. I did not realize that you had so many reserves.

Mr. PINCHOT. Yes. To answer Mr. Brooks's question, I do not care, if you give me the money, whether I pay it back or not.

Mr. BROOKS. There is a question of principle that comes in there that is pretty serious. I will say, right now, that I quite appreciate, not the needs, but the demands for the efficient organization of these reserves that the Government has embarked on. It is like everything else that is done in a half-hearted way. Your original investment is not income bearing, but will become so if you make a further investment. But the question for Congress to consider is whether or not it will go into the business of lending a Department money which will be covered back into the Treasury, rather than to make it by direct appropriation year after year, as the exigency arises.

Mr. PINCHOT. I promised Mr. Wadsworth, your chairman, that we would not ask for more than \$1,000,000 for any one year. I am not asking for more than \$1,000,000 except as a loan. If I owned this property, as a private citizen, and needed the money, I would simply borrow it and I would expect to pay the money back.

The CHAIRMAN. It is a question for us to decide whether the Government wants to go into this business. It is a business proposition. As Mr. Pinchot says, he would go and borrow the money, giving the property as collateral. It is a question whether the Government wants to go into that business.

Mr. SCOTT. It might also be said that if Mr. Pinchot were engaged in one great enterprise, and should try to undertake another, and had surplus funds in his first enterprise to carry the expenses of the second, he would, of course, take the funds from his first enterprise. That is, he would take the money out of one pocket and eventually put it back in the other.

Mr. PINCHOT. I would charge it against the one to which it was given?

Mr. SCOTT. Undoubtedly so. It is a mere matter of bookkeeping, and eventually it does not make any difference to the Government. It is simply a question of policy.

Mr. PINCHOT. That is with you gentlemen. Either way would satisfy me, of course.

Mr. COCKS. How many rangers would it require if they were all expected to get back to their cabins at night in this reservation, if they only had enough to patrol——

Mr. BROOKS. Put in "if they had reasonably proper trails."

Mr. COCKS. Assuming it was developed as you have suggested.

Mr. PINCHOT. It is a guess, but I do not believe it would require appreciably more than we have now.

Mr. COCKS. Do you mean that he could cover it in each direction there?

Mr. PINCHOT. Why, yes.

Mr. BROOKS. Twenty miles; 10 miles either way from the cabin.

Mr. PINCHOT. A man can cover 15 miles either way.

Mr. BROOKS. A man in the center here can cover a square of 30 miles.

The CHAIRMAN. Fifteen miles each way from the center?

Mr. BROOKS. Yes.

Mr. PINCHOT. I believe this reserve could be substantially covered with the present force.

Mr. COCKS. That means there, and that way, and that way, and this way [indicating].

Mr. PINCHOT. Yes.

The CHAIRMAN. What is the altitude of that?

Mr. PINCHOT. It runs up to about 10,000 feet.

The CHAIRMAN. There is nothing there in the winter, is there? You do not keep any men there in the winter?

Mr. PINCHOT. There is some timber cutting going on up here, but that is in the high peaks. There must be something like 200 square miles, I think. There is about 1,000,000 acres. Give me the area, will you. Mr. Price? You have it on that slip. I got it too small. It is 1,982,100 acres, or nearly 2,000,000 acres. That is a guess about the number of rangers. It might take 50, but I do not think so.

Mr. COCKS. So far as all practical purposes are concerned, would not a man go from one cabin to another, and camp here to-night, and then go on to-morrow to this cabin? And would not that answer every purpose, if he got around here once in every two or three days in this place?

Mr. PINCHOT. You understand there is a great deal of work in addition to the patrol work that he has to do.

Mr. COCKS. What kind of work?

Mr. PINCHOT. For instance, there is timber cutting going on here, and every tree that is cut down has to be marked. Every log that is cut has to be scaled, and the brush has to be piled in a particular way. It must be carefully seen to, and all instructions concerning it must be followed out. Then, hundreds of people are coming up to the reserve to get a little firewood or a fence post or two, and each man is watched. The stock has to be followed on and off, and where there are sheep—

Mr. COCKS. You do not mean on and off every day?

Mr. PINCHOT. No; on and off in the spring and fall. There is a great deal of work to be done in making trails and roads, repairing telephone wires, and so forth.

Mr. COCKS. How is a man going to ride 15 miles in each direction every day—

Mr. PINCHOT. He is not going to.

Mr. COCKS. And still have time to do anything else?

Mr. PINCHOT. We can not man this reserve for many years to come.

Mr. BROOKS. All there is back of that, as I understand it, is in case of exigency a man could go from a certain place and attend to something that required attention, and go back that night?

Mr. PINCHOT. Yes.

Mr. COCKS. As I understand, this cabin would be of great advantage, even if it was not occupied every night?

Mr. PINCHOT. Of enormous advantage.

Mr. COCKS. So that a ranger would have a dry place ready for pitching his camp, and so forth?

Mr. PINCHOT. Yes; you can count on it safely, without the least exaggeration, that we will more than double the efficiency.

Mr. COCKS. I can appreciate that.

The CHAIRMAN. Your proposition is that you want \$5,000,000, which you propose to pay back in how many years?

Mr. PINCHOT. At the rate of half a million dollars a year, beginning in ten years.

The CHAIRMAN. It is simply working capital to develop the property and to put it on a business, income-producing basis?

Mr. PINCHOT. That is it exactly.

Mr. SCOTT. You are planning for 28 cabins on this reserve?

Mr. PINCHOT. Yes.

Mr. HAUGEN. Do you expect to man them entirely, in time?

Mr. PINCHOT. Oh, yes; in time.

Mr. HAUGEN. How many would it require—15,000?

Mr. PINCHOT. Oh, no; that is the basis, I said, if we had as many men as they have in Germany.

Mr. HAUGEN. How many will you require?

Mr. PINCHOT. On the basis of Germany, 117,000 forest rangers and 15,000 forest supervisors, because a forest supervisor, who, with us, has 1,400,000 acres to look after has 8,465 acres in Germany.

Mr. SCOTT. If my figures, which I have hastily set down are right, there is about 300,000 square miles in that reserve. You have 28 rangers. That gives about 100 square miles to be traveled over by each ranger.

Mr. PINCHOT. Yes.

Mr. SCOTT. One hundred square miles would be comprised, of course, in a tract 10 miles square.

Mr. PINCHOT. Yes, sir.

Mr. SCOTT. Then you put a man down in the middle of that and he would not be very busy, would he, looking after a tract 10 miles square?

Mr. PINCHOT. He would not be if he had only patrolling to do, but that is one small part only of the work. There is all the business of the range to look after. A farmer drives over his farm occasionally to see if everything is all right, but the greater part of his time is occupied in doing work in one way and another; and so with these men. Patrolling will be only a small incidental part of their duty as time goes on.

Mr. SCOTT. What are these 28 men doing now?

Mr. PINCHOT. Their principal business now is to fight fire. We have to have 28 because of the immensely difficult character of the country. Without a trail a man can move nowhere.

The CHAIRMAN. There must be a great tendency to trespass on the border of that reserve?

Mr. PINCHOT. We have to watch carefully.

The CHAIRMAN. Do you say that you allow \$20 worth of timber a year to settlers?

Mr. PINCHOT. That is the case.

The CHAIRMAN. How is that arrived at?

Mr. PINCHOT. There is a law which says the Secretary of Agriculture may give to bona fide settlers, under such rules and regulations as he may prescribe, timber for their own use, and he prescribes \$20 for it a year. In some reserves there are as many as 3,000 permits issued each year.

The CHAIRMAN. That is a part of your receipts, of course?

Mr. PINCHOT. No, that is free.

The CHAIRMAN. Do you find that rather difficult to govern?

Mr. PINCHOT. It is one of the most difficult questions we have, because when a man wants timber he wants it right away.

The CHAIRMAN. And sometimes he does not want merely wood, but he wants timber.

Mr. PINCHOT. Yes, he wants all kinds; and then he wants to get it free. It is a very complicated question.

The CHAIRMAN. Do you want to go further into detail about your \$5,000,000 proposition?

Mr. PINCHOT. Not unless you, gentlemen, have questions to ask. If will give me \$2,000,000 this year, we would like permission to add \$200,000 for a timber-testing laboratory, and I will ask Mr. Hall, with the Chairman's permission, to make a short statement on that subject.

Mr. BROOKS. I would like to ask one question with relation to these German reserves. I would like to know whether they are self-sustaining.

Mr. PINCHOT. They have enormous revenue.

Mr. BROOKS. Do they pay their rangers anything like what we pay them?

Mr. PINCHOT. No; the rates of pay are as low with them in forestry as in other things. The forest supervisor there gets about \$1,000 a year and a house. With us he gets from \$1,500 to \$2,500. I might say in that connection that the investigation of the Keep Commission into the salaries in the Government service has shown that the Forest Service is about 25 per cent, in its salaries, below the average Government organization.

The CHAIRMAN. That is because they are out of the city, and they have not got the facilities for log rolling.

Mr. PINCHOT. I mean the clerks right here.

The CHAIRMAN. Here, too?

Mr. PINCHOT. Yes.

The CHAIRMAN. In this city?

Mr. PINCHOT. Yes.

Mr. CROMER. Lower than the post-office clerks?

Mr. PINCHOT. Yes. I think, so far as the investigation of the Keep Commission has gone, the Forest Service salaries are lower than in any other organization.

Mr. BROOKS. There is one very serious objection that follows from that. These forest rangers are paid anywhere from \$900 to \$1,400, are they not?

Mr. PINCHOT. Yes.

Mr. BROOKS. A man who has the head and the body, and the general intelligence to be a successful forest ranger, if he has any life in him at all, can make more than from \$900 to \$1,400 at almost any kind of work near the reserves.

Mr. PINCHOT. Yes.

Mr. LAFEAN. Do you find any trouble in getting men?

Mr. PINCHOT. We are losing our best men all the time, because we are not able to pay them. One of the most important results this will have, if we can build the cabins and get the telephone lines, and so on, will be to make the men more comfortable, and thus get them to stay.

Mr. FIELD. The necessity for this improved service is much greater in some of the reserves than in others, is it not?

Mr. PINCHOT. Yes, but it is very great everywhere.

Mr. FIELD. Do you regard that California reserve as the most urgent?

Mr. PINCHOT. I think this Santa Barbara reserve is as important as any, because of the immense output of the irrigated lands below here, which depends on this.

The CHAIRMAN. The water reserve?

Mr. PINCHOT. Yes; and this one we have estimated at much more than its pro rata share.

Mr. HASKINS. Are these employees under the civil service?

Mr. PINCHOT. All of them.

The CHAIRMAN. I notice there is an increase of \$19,000 on the statutory roll which has been given to the committee: "Four clerks, class four (increase of two submitted)"——

Mr. PINCHOT. I would like to read you a few figures on that line.

The CHAIRMAN. You submitted another statutory roll, I think?

Mr. PINCHOT. There was a clerical mistake made in the statutory roll that we submitted first. That was changed. This is simply what was first submitted.

The CHAIRMAN. This is the one, then [indicating]?

Mr. PINCHOT. That is the one I would like to have in, instead of the one that was printed.

The CHAIRMAN (reading letter from the Secretary of Agriculture):

Through a misunderstanding certain changes were made in this Department in the statutory roll submitted to me with the estimates of the Forest Service for the next fiscal year. This statutory roll as originally submitted by the Forest Service, a copy of which is inclosed, has my full approval, and I shall be very glad if it can be approved by your committee instead of the amended statutory roll for the Forest Service printed in the estimates of this Department. The statutory roll recommended provides for a small and necessary increase in the number of clerical positions due to the growth of the work of the Forest Service. It provides also for certain promotions in the clerical force, which, under my agreement with you, can not be made except in this way.

That is not exactly an agreement with me. It is a matter of law, is it not?

Mr. PINCHOT. No; it is an agreement that the Secretary would not transfer a man from the statutory roll to the miscellaneous roll, and promote him.

The CHAIRMAN. That is true; yes.

These promotions number 19; 1 is for \$80, 2 are for \$200, and the remaining 16 are for \$100 each. I want to recommend also the promotion of Overton W. Price, associate forester, from \$3,000 to \$3,500 a year.

The communication is signed by James Wilson, Secretary. This is the list as you want it?

Mr. PINCHOT. Yes, sir.

The CHAIRMAN. There is no total given here. What is the difference from the other estimate? Do you know?

Mr. PINCHOT. The difference is very small. I have forgotten just what it is. It foots up \$129,940.

The CHAIRMAN. That is about \$2,000 less than you had in the estimate?

Mr. PINCHOT. It is \$2,000 less. This statutory roll carries \$3,500 for the forester, and the other carried, thanks to the Secretary, \$5,000, which I had forgotten about. I could give you some figures as to the growth of the service.

The CHAIRMAN. What is the total of this? Has this been added up, Mr. Price? Has that list been added up? As I understand, that is the list you want put in the bill?

Mr. PRICE. That is the original.

Mr. PINCHOT. This was changed.

The CHAIRMAN. This is the one you want?

Mr. PINCHOT. That is the one.

The CHAIRMAN. Do you know what the total is?

Mr. PINCHOT. I am not sure, but I think it is \$131,980.

Mr. HAGEN. Do you ask for an increase of salary of all clerks?

Mr. PINCHOT. Oh, no; not all of them—just a few. I would like to say, too, if I may, about the statutory roll, that the growth of the forest service has been like this: Since the fiscal year 1899 we have had, I find, \$28,520; then \$48,520; then \$88,520; then \$185,440; then \$291,860; then \$350,000, and then the year of the transfer, \$850,140, and last year a million from the committee. At the same time, there have been these enormous changes in the work, required by reason of the new duties that have been laid upon us. We have to come in in September and make estimates for a clerical force under the statutory roll that we think will be adequate until a year from the following July.

The CHAIRMAN. Almost two years?

Mr. PINCHOT. Almost two years. With a service that is growing and changing as rapidly as this is, it is simply impossible for us to meet the situation that far ahead. We make an effort to do it, and do the best we can, but there will be a considerable number of new people in the service between the time when the statutory roll is made up and the time it goes into effect. The result of this is that our clerical force suffers very severely from our inability to recognize good work, which is one of the most fatal things that can happen to any service. This is an actual case: A man comes in in the fall, after the estimates have been submitted, at \$900. He leaves a position often at more than \$900 somewhere else, because our work is attractive and he likes it. If the thing goes on in the regular way that man, whom we are trying out—and if he is worth anything he is worth a great deal more than that—can not get any promotion for two years. The result is of course, that we can not hold him. I do not think there is anything that does our clerical work so much injury as that arrangement which prevents promotions on the statutory roll.

The CHAIRMAN. You mean at any time?

Mr. PINCHOT. Whenever in the judgment of the Secretary of Agriculture it should be done.

The CHAIRMAN. Do you propose to amend the law in that particular?

Mr. PINCHOT. No. What I would like would be to have that agreement which you have with the Secretary, that no promotions whatever in the clerical positions on the statutory roll could be made, abrogated.

The CHAIRMAN. How can it be made on the statutory roll?

Mr. PINCHOT. On the miscellaneous roll. With that we can not move a man off the statutory roll onto the miscellaneous roll and promote him.

The CHAIRMAN. You say the agreement with me. It was an agreement entered into with the committee. It is not mine, personally.

Mr. PINCHOT. Yes, sir; the agreement with the committee.

The CHAIRMAN. I think it was to prevent taking a man from the statutory roll and putting him on what was called the temporary roll or the miscellaneous roll, and promoting him at the same time.

Mr. PINCHOT. Yes, sir.

The CHAIRMAN. It was thought it might be the opening of the door to possible abuse, or favoritism; that was the idea.

Mr. PINCHOT. Yes.

Mr. SCOTT. My recollection of that agreement is that it was made because the committee did not think the Department ought to, by what seemed to be a sort of subterfuge, increase a salary which the committee, after considering it, had refused to increase.

The CHAIRMAN. That was it.

Mr. SCOTT. We found, for instance, that a request would come to us for an increase of a certain salary on the statutory roll. We would consider it and decline to grant it. Then when we got around to it the next year, we would find that that very man for whom this increase had been asked was transferred to the lump-sum roll, and the increase granted, and it was to prevent that that this agreement was made.

The CHAIRMAN. You can not make up a statutory roll to fit every case. You have got to do the best you can.

Mr. PINCHOT. I am certain that the committee has never had any such experience as that stated by Mr. Scott with the Forest Service. We have never beaten around the bush in that way, and we are very seriously injured by the present arrangement. Our work suffers.

The CHAIRMAN. The trouble is to make one method for one bureau and another method for another bureau. It would not do at all.

Mr. SCOTT. Have we not an arrangement with the Secretary whereby he may increase salaries on the lump-sum roll up to a given sum—I think \$3,000?

Mr. PINCHOT. That is only for technical men.

The CHAIRMAN. That was all talked over at the time that statutory roll was comprised mostly of clerks, while the temporary roll was comprised of scientists—or the miscellaneous roll—and there we gave them an opportunity to promote those scientists.

Mr. PINCHOT. We are having a good deal of trouble to hold our men, anyway, but in the technical work a spirit has developed in the service which works out constantly in the men refusing very much higher salaries outside. I could give you the names of half a dozen

right now who have refused salaries from half again as large to twice as large. A man who gets \$1,800 has refused an offer of \$3,600; two who are receiving \$1,200 have refused offers of \$1,500, and another at \$1,300 has refused an offer of \$3,000, because of their interest in the work with us.

The CHAIRMAN. Those are scientific men—technical men?

Mr. PINCHOT. Yes.

The CHAIRMAN. You have the right to promote what you might call technical men?

Mr. PINCHOT. Up to \$3,000. Would it be possible to modify the arrangement so that it would apply to positions which have been considered by the committee and not to the others? That is to say, if you gentlemen had considered the case and decided it, that would settle it; but if it were a case that had never been brought to your attention, then you could trust it to our executive officer until the next 1st of January, when the promotions were submitted to you.

Mr. DAVIS. Under that arrangement would there be any promotions submitted to the committee?

Mr. PINCHOT. I do not know whether there would be or not.

Mr. SCOTT. I should think if there were that arrangement made, it would be with the implied understanding that any proposed promotions, or any actual promotions, would be submitted to the committee.

Mr. PINCHOT. Any promotions which were known about that time.

Mr. BROOKS. That would put us, subsequently, in the position of reducing a man below what he received, if we agreed to do so.

Mr. PINCHOT. I do not think you could make an administrative position without making bad administration possible at some time. You can not give a man the power of determination unless you give him responsibility, and the minute you do that you give him a chance to do bad work.

It seems to me the chance of good work is inseparably connected with the chance of bad work. A man can reach in this way a mediocre condition that is neither good nor bad, but effectiveness is out of reach, it seems to me, under this plan.

The CHAIRMAN. We thought that we had made a great step forward when we eliminated most of the technical or scientific people from the statutory roll.

Mr. PINCHOT. Yes; that was a good thing.

The CHAIRMAN. And gave the power of promotion without the consent of the committee.

Mr. PINCHOT. If it were a question of just hack work, routine work, so that nobody would really care whether it was good or bad, that arrangement might be all right; but where you are trying to have a high grade of efficiency, and where it is necessary for the clerks to do good work, the difference will be recognized directly.

Mr. SCOTT. If this work is one of high-grade efficiency is it not really technical work?

Mr. PINCHOT. I suppose you can not call stenography and type-writing, and compilations, and all that sort of thing technical work.

Mr. SCOTT. No; but I did not think you had such work in mind when you spoke of the people leaving lucrative employment to come into your bureau because they liked the work.

Mr. PINCHOT. I did not. I was speaking then of the technical work.

The CHAIRMAN. I understood it that way.

Mr. PINCHOT. We have had a great many cases of people coming for clerical work, and trying to get in because of the pleasant atmosphere.

Mr. SCOTT. If it is the kind of work you speak of, why can not the promotions be made?

Mr. PINCHOT. They can in the case of technical men, up to \$3,000. I was speaking of the clerical work particularly.

Mr. FIELD. Can not these promotions be made conditionally; that is, subject to the subsequent action of the committee?

The CHAIRMAN. I am afraid that would result—

Mr. BROOKS. That would put a pretty invidious duty on the committee, of reducing a man to the ranks after the Department had advanced him.

Mr. FIELD. No; it is the committee's right to fix it, and if the necessity of the case suggests the promotion of a man, could it not be done conditional upon the subsequent action of this committee?

Mr. PINCHOT. Of course we ought always to be able to justify what we have done in that way.

Mr. FIELD. It would seem, then, that it could be done in a proper case without danger of the subsequent reduction.

Mr. PINCHOT. But, if I may mention it, gentlemen, the difficulty is, it seems to me, that it would be impossible for the committee to have detailed knowledge of each case sufficient to act upon it, except as they get the information from the executive officer.

The CHAIRMAN. If you follow that along you will find that it is impossible for the Secretary of Agriculture, or of any of the Departments, to know individual cases. He would have to go back to the bureau itself, and perhaps to the section chief.

Mr. PINCHOT. That is the man who would be held responsible.

The CHAIRMAN. That is where the danger of favoritism and such things creep in. If each individual case could be decided on its merits by the Secretary it would be different, but that is impossible. It goes back even to the section chief, perhaps.

Mr. PINCHOT. Yes; many times.

The CHAIRMAN. There is the danger. There are a great many of them, and all kinds of people, and the danger of favoritism creeps in. It is a very hard thing to manage. I know that.

Mr. PINCHOT. What we want is efficiency in the matter, naturally. May I now ask that Mr. Hall make his statement?

Mr. BROOKS. The 1905 United States map has all the forest reserves shown on it, has it not?

Mr. PINCHOT. Up to the time when the drafting was completed.

Mr. BROOKS. It is practically all on the latest map?

Mr. PINCHOT. Practically all.

The CHAIRMAN. I think the total of expenditures for that reserve is \$75,000?

Mr. PINCHOT. Yes.

The CHAIRMAN. That is the general class of work you wish to do on all the reserves?

Mr. PINCHOT. Yes.

Mr. BROOKS. I wonder if you can leave this map with the committee?

Mr. PINCHOT. Certainly.

Mr. BROOKS. I would like, when the committee considers it, to have that map before it, and also the latest map of the United States with the reserves on it.

Mr. PINCHOT. Why not have one sent up brought up to date?

Mr. BROOKS. If you can do that, that would be very good.

Mr. PINCHOT. Yes.

The CHAIRMAN. Have you a map as large as that [indicating]?

Mr. PINCHOT. I will take a land office map like that and see that it is brought up to date.

Mr. BROOKS. That is exactly what I want.

The CHAIRMAN. Before we drop that, Mr. Pinchot, there are two propositions—one to loan this money, and one to appropriate it direct. Suppose the judgment of Congress should be to loan it to you. How would you make that loan? Have you looked into that subject?

Mr. PINCHOT. Yes.

The CHAIRMAN. From a lawyer's point of view?

Mr. PINCHOT. Yes, sir. I have it here.

The CHAIRMAN. How does that read?

Mr. PINCHOT (reading):

And there is hereby appropriated out of any money in the Treasury not otherwise appropriated the sum of two million dollars to be immediately available until expended as the Secretary of Agriculture may direct to construct permanent improvements for the administration, protection, and improvement of the national forests, but not for current expenses: *Provided*, That not to exceed two hundred thousand dollars of this appropriation shall be immediately available until expended as the Secretary of Agriculture may direct to purchase the site for and to build and equip a wood-testing laboratory in the District of Columbia: *And provided further*, That the entire sum of two million dollars hereby appropriated shall constitute a loan to be repaid to the general fund of the Treasury without interest out of the special fund obtained from charges from timber, grazing, and other resources of the national forests, and provided for by section five of the act of February first, nineteen hundred and five (Thirty-third Statutes at Large, page six hundred and twenty-eight). In amounts of not less than five hundred thousand dollars to be paid at the end of each fiscal year, beginning not later than the fiscal year ending June thirtieth, nineteen hundred and seventeen, until the entire amount of two million dollars has been repaid.

Mr. SCOTT. Then do you expect to come in next year with the same item, carrying \$2,000,000 or \$3,000,000 more?

Mr. PINCHOT. Whatever the conditions at the time might seem to demand.

The CHAIRMAN. You think the outside amount would be \$5,000,000?

Mr. PINCHOT. I think \$5,000,000 would put us on our feet, and we need not get any more.

Mr. BROOKS. As an alternative to that, suppose Congress should start the policy of giving you one or two million dollars outright every year—as much as you could advantageously expend. That would suit your purposes just as well?

Mr. PINCHOT. Just as well.

Mr. BROOKS. And the net result to the Government would be identical, because after the lapse of a few years the Prussian condition would exist in this country to some extent, and we would be getting back, not as equivalent to a loan, but as increment to the national reserve, a sum equal to the loan.

The CHAIRMAN. If we loan you this money it will be a spur in your side, and you will want to pay it back.

Mr. PINCHOT. Either way it suits me.

There is one more item I would like to call attention to. I have rewritten for submission to you the item "General expenses, Forest Service," leaving out a whole lot of things which were included last year, and which it is useless to leave in, and making one or two changes to which I want to call your attention. Shall I do that?

The CHAIRMAN. Yes.

Mr. PINCHOT. I want to make the changes because at the time it was submitted we did not know just what was going to be necessary. If I may read the item, it goes like this:

GENERAL EXPENSES, FOREST SERVICE: To enable the Secretary of Agriculture to experiment and to make and continue investigation and report on forestry, forest reserves which shall be known hereafter as national forests—

We find that the name "reserve" does a lot of harm in the West.

The CHAIRMAN. Gentlemen, you can follow this on page 25 of the estimates.

Mr. PINCHOT. We find that a good many people confuse forest reserves with Indian reservations. This change will obviate that difficulty, and will help us a good deal [reading]:

Forest fires, and lumbering; to advise the owners of woodlands as to the proper care of the same; to investigate and test American timber and timber trees, and their uses, and methods for the preservative treatment of timber; to seek, through investigations and the planting of native and foreign species, suitable trees for the treeless regions; to erect necessary buildings: *Provided*, That the cost of any building erected shall not exceed one thousand dollars; to pay all expenses necessary to protect, administer, improve, and extend the national forests—

Now, here comes a new part—

And the Secretary of Agriculture is hereby empowered to divide all lands in national forests into such specific national forests as he may deem best from time to time for administrative purposes, and give to each such name as may be convenient; to transport and care for fish and game furnished to stock the national forests or the water therein.

The situation is this, that as the forest reserves are proclaimed now they are exceedingly awkward administrative units. A man is put in charge of a forest reserve, and part of it will be on one side and part on the other side of a range of mountains, and will be inaccessible in winter. What we want to do is to bring those that are accessible together.

Mr. BROOKS. What does the fish and game mean?

Mr. PINCHOT. It means this: We have been offered, a number of times, fish and game to stock the reserves. There is an association now proposing to give us South African antelopes.

Mr. BROOKS. But that does not contemplate an expense to the Government for stocking the reserves and getting the game?

Mr. PINCHOT. It is simply to transport and care for the fish and game furnished.

The CHAIRMAN. To transport them from South Africa?

Mr. PINCHOT. No; for instance, we have been offered a herd of elk, if we can accept them and put them on the reserve.

Mr. BROOKS. Who will take care of them?

Mr. PINCHOT. The forest rangers [reading]:

To ascertain the natural conditions upon and utilize the national forests; to employ fiscal and other agents, clerks, assistants, and other labor required in practical forestry, in the administration of national forests, and in conducting experiments and investigations in the city of Washington and elsewhere; to collect, digest, report, illustrate, and print the results of experiments and investigations made by the Forest Service; to purchase law books to an amount not exceeding five hundred dollars, and necessary supplies, apparatus, office fixtures, and technical books and periodicals—

The CHAIRMAN. Did we not adopt a plan last year of having the Department librarian buy all the books? We struck out all the books last year.

Mr. PINCHOT. Yes; you did.

The CHAIRMAN. So that the purchases of books should all be made on the recommendation of the bureau chiefs, by the librarian, so as to prevent the setting up of separate libraries by each bureau.

Mr. PINCHOT. We have a lot of men in the reserves who are anxious to learn, but they can not afford to buy expensive books on forestry themselves. We have them in the library here, but we have not enough of them. Therefore we wanted to make a little circulating library on various topics, to go from reserve to reserve, or from man to man in the reserve, so that the men could study.

The CHAIRMAN. Then you had better specify that—books only for those places.

Mr. PINCHOT. All right, sir [reading]:

And to pay for freight, express, telegraph, and telephone charges, electric light and power, fuel, gas, ice, washing towels, and traveling, and other necessary expenses, nine hundred thousand dollars, of which sum not to exceed forty thousand dollars (\$40,000) may be used for rent. And the Forester is hereby authorized to procure an official seal for the Forest Service, to be approved by the Secretary of Agriculture, and copies of any books, records, papers, or documents in the Forest Service authenticated under such seal shall be admitted in evidence equally with the originals thereof.

We need that very much, and other people have it.

Total for salaries and general expenses, Forest Service, nine hundred thousand dollars.

It was a million last year.

And there is hereby appropriated out of any money in the Treasury not otherwise appropriated, the sum of two million dollars, to be immediately available, until expended as the Secretary of Agriculture may direct, to construct permanent improvements for the administration, protection, and improvement of the national forests, but not for current expenses: *Provided*, That not to exceed two hundred thousand dollars of this appropriation shall be immediately available until expended, as the Secretary of Agriculture may direct, to purchase the site for and to build and equip a wood-testing laboratory in the District of Columbia.

That is the matter Mr. Hall is going to speak about.

The CHAIRMAN. You will recast that, will you?

Mr. PINCHOT. I will recast it, and turn it in.

The CHAIRMAN. Do you want Mr. Hall to be heard on the new building for testing woods?

Mr. PINCHOT. Yes.

STATEMENT OF WILLIAM L. HALL, IN CHARGE OF FOREST PRODUCTS, FOREST SERVICE.

Mr. HALL. The main points about this wood-testing work, and wood-testing laboratory proposition, are very simple. The Forest Service has tested the strength of timber in various ways for several years. The results which have come from that work have been mainly in two directions. The main result has been in bringing into use a lot of timbers which before were considered absolutely worthless. I will give just a few instances. There was a time when the longleaf pine trees which had been tapped for turpentine were not used for structural purposes, because it was believed that their strength was impaired. We took that matter up, tested the wood, and found that the strength was not injured; that such wood was perfectly good, and it is now used, and specifications do not bar that kind of timber.

The North Carolina pine, or loblolly pine as it is sometimes called, which is now in common use as a construction timber through the Eastern States and Mississippi Valley, was not known and recognized on the market until the result of the tests which have been made was made known. Those tests were made right in the old bureau of forestry, or in the old division of forestry, and they were published. In the same way the gums of the South have been recognized, and the Douglas fir, or the yellow fir—two names for the same thing—which grows most abundantly along the Puget Sound coast. That timber was not known, and was not recognized on the market at nearly its true worth, until the tests of the Service began to come out. Now it is coming clear from Puget Sound into the Philadelphia and New York markets. It is going all over the country, and it is very rapidly becoming one of our standard structural timbers. In just the same way we are bringing out the value of the hemlock which grows in the West.

These are simply instances of what we have done in this line of work. There are hundreds of other timbers which we do not know the value of, and we shall not know the value of them until they are put through some kind of test like this, or else are tried in actual use; and our people are very slow to take new timbers and put them into use without some sort of basis to do it on.

So the first and most important result of all this wood-testing work has been to bring into use timbers which were not considered valuable. There is a second result which is scarcely less important to consider, and that is this. In connection with the timbers which are used the tests have shown great economies which were not seen before the tests were made. As an example of that, the vehicle men used more than any other wood—hickory. It is a wood which they have never been able to replace with anything else for many uses, and it is wood of which the supply is dwindling remarkably fast.

They have been grading hickory just as it had been graded in previous years, each man basing his practice on somebody else's practice. The manufacturers became so alarmed at the situation that they asked us whether we would not make some tests of the hickory which goes into their buggies to see whether we could furnish any better system of grading. We took the matter up and tested a lot of different samples of hickory in the form of buggy spokes, all manufactured, and they were graded according to grades A, B, C, and D.

When we got those tests completed they showed that the manufacturers had been discarding, or placing in classes C and D, some of the kinds of hickory which were most valuable for spokes, and that has been going on all these years. They have been throwing out the red hickory for the last hundred years, and we found in those tests, and they now admit it, that red hickory is just as valuable as white hickory for that purpose, and they are changing their practice.

We are doing the same kind of work in testing wagon parts, such as tongues and axles, and other parts. So that is the second important result of this work—showing how to use the timber in an economical way. This work has been carried on with facilities which have been furnished to the service by a number of universities over the country. We have been in cooperation with the Purdue University of Indiana, Yale University, and with the universities of California, Washington, and Oregon. The plan has been that those universities furnished us with a portion of their machinery and laboratories. They furnished their machines, and our men went there at times when the laboratories were available. Of course, when the engineering classes were on or the university laboratory work was in progress, we had to simply get out of the way and give them room, because we could not ask for the machinery at that time. It has been through that sort of arrangement that we have developed this work. The pressure for this laboratory has come from the outside. The wood-using associations and the lumber associations have seen the value of this work, and when we have presented papers before them they have suggested tests and wanted us to make tests.

We have told them that we could only make them so fast, as we had only such and such facilities for doing the work. They have said it was not fast enough; that the timber resources of the country are diminishing, and that they need this work, and want better facilities. So a number of the national associations have taken action in the matter, and in November they sent a number of delegates to Washington for a conference on this subject, and that conference, after considering the matter fully, adopted this resolution:

That it is the unanimous sense of this conference that a laboratory for testing the strength and other characteristics of wood, and for solving problems connected with its economic use, is absolutely essential to the manufacturers and users of forest products of this country; that we ask these interests to petition Congress for an appropriation of \$200,000 to establish such a laboratory, and that it be under the control of the Forest Service of the Department of Agriculture.

The conference was attended by representatives of the National Hickory Association, the National Wagon Manufacturers' Association, the Carriage Builders' National Association, the National Association of Box Manufacturers, the Western Wheel Manufacturers, the National Lumber Manufacturers' Association, the National Hardwood Lumber Association, and the American Forestry Association.

That was really the origin of this business, although it has been suggested for some time.

It has been proposed that this laboratory ought to be in the District of Columbia, here in Washington. If it is so placed, it will give us the opportunity to economize a good deal in the work. Our cooperative work has been done at five different laboratories. We can centralize the work and withdraw from practically all of those labora-

tories that are in the East. We shall probably want to continue some work on the Pacific coast, because it would be too far to ship the material from there to Washington; but if we had a laboratory here it would be accesible to all the timber regions to the south and to the north of us and the mountains on the west of us. So we believe that this is the point for it.

Then there is another consideration. Washington is, as you know, a great center for meetings. Associations such as I have mentioned are frequently meeting here, and it is really a central point, and easier to get at on occasions of that kind than any other point you might pick out in the country. So it seems that this is really the best location for the work.

The strength of timber is not the only consideration that will receive attention in this laboratory, if it is established. There is enormous waste through material left in the forest, and through material thrown out in the sawmill operations, and in reworking the material into the manufactured product. There is waste all along the line, and we can, if this laboratory is established, solve the problem how to utilize that waste. In one particular, that of wood distillation, we believe we could make an enormous saving in the use of southern pine timber. Undoubtedly 25 to 50 per cent of the wood in the trees as they stand on the ground is wasted and never reaches any factory where it is used. It is wasted in the form of stumps, in the form of slabs, and edgings in the sawmill, and then in the form of pieces cut off in remanufacturing, and through wood distillation, or the working of this material into paper pulp, or some similar means, I believe we can effect an enormous saving.

I think, unless there are some questions, that is all.

Mr. SCOTT. To what extent is the work of wood testing being done now by any of the States?

Mr. HALL. There is no work of wood testing being done by any of the States, except as the work is assigned to the students. The University of Illinois is now equipping a laboratory and is proposing to take up some of the work. But almost all of the work that has been done up to this time—and I think I speak with absolute correctness on this—has been done in cooperation with the Forest Service.

Mr. SCOTT. Have any of these big organizations whose resolutions you read a little while ago done any work of that kind for themselves?

Mr. HALL. No; they have not the facilities for doing it and have never established the facilities. They do cooperate with us in the furnishing of material.

Mr. COCKS. What sort of facilities would we have to have to test the strength of a stick of timber?

Mr. HALL. It takes different testing machines for different tests. You have to have one kind of a machine for testing the bending strength of timber with static loading and an entirely different machine to test its strength under impact loading. Different apparatus is also used to test the compression strength of a stick.

Mr. COCKS. For instance, it would not take a very extensive laboratory to test the different kinds of timber that enter into a vehicle, would it?

Mr. HALL. Not if that were the only test to be made.

Mr. COCKS. Do any of these big concerns have their own laboratories? Take the large manufacturers, for instance the Studebakers. They must be able to test their own timber, I should think, for all their vehicles.

Mr. HALL. No; I do not think they test their own timber.

Mr. COCKS. We are testing it for them, all right.

Mr. BROOKS. Is it not your idea, not to test specific pieces of timber that are used for specific purposes, but to test classes of timber and lay down a rule?

Mr. HALL. To establish standards; yes, sir.

The CHAIRMAN. How long has this testing been going on here? It was going on when I first came, and some tests were going on in St. Louis, I think, under a man named——

Mr. HALL. Johnson. The work began in 1892 and went on until 1896——

The CHAIRMAN. Has not any definite ground been covered or any progress made?

Mr. HALL. Yes, sir; I think so. Some of the problems which we encountered at the start we have worked out completely. We have been working, practically, with the long-leaf pine and the North Carolina pine and are about done working with the Douglas fir and shall soon finish up with the western hemlock.

The CHAIRMAN. How many varieties of timber do you consider building timber, roughly speaking?

Mr. HALL. That depends on what you call building timber.

The CHAIRMAN. How many do you consider building timber, as an expert, in round figures?

Mr. HALL. I expect we have as many as 50 building timbers that might be classed as structural timbers; but when you come to the construction of vehicles and things like that, we go much beyond that. There are a great many woods that may be used for that purpose.

Mr. COCKS. What can you think of besides hickory for the spokes of a wheel?

Mr. HALL. I can not think of any other for buggy wheels. Oak is used for large wagon wheels.

Mr. COCKS. What advantage are we going to get in testing a pair of whiffletrees? Is not the best way to hook up a good pair of horses to a big load, and if they stay, you say they are tested?

Mr. HALL. No; because where you have one wagon that you can hook a pair of horses to and test it, you have thousands of other wagons in use.

Mr. COCKS. We want to get at some practical basis. Almost every farmer knows about what size stick to cut out to make a pair of whiffletrees. How is your laboratory business going to help him out in indicating the size of the stick, or the quality of the stuff that is necessary to hold in case he gets stuck with a heavy load?

Mr. HALL. It will show the strength of the timber in different sizes, and if he has that he could readily arrive at the strength of the wood.

Mr. COCKS. How is that given? In what way is it given?

Mr. HALL. It is given in several ways, but the simplest form is the point at which the stick breaks.

Mr. COCKS. What is that designated in; foot-pounds, or what?

Mr. HALL. Pounds per square inch.

Mr. COCKS. Pressure?

Mr. HALL. Pressure.

Mr. COCKS. How is he going to tell the strain that is being put on that stick? How is he going to arrive at a practical solution of it?

Mr. HALL. When we publish any tests we publish the conditions under which they are made. He will know exactly the size of the stick, the cross section, the length, how the supports were placed, and so forth.

Mr. BROOKS. Does he know where the power is applied to the stick?

Mr. HALL. Yes; he knows all the points of the test.

Mr. SCOTT. You say the vehicle manufacturers have been discarding red hickory for one hundred years?

Mr. HALL. Yes.

Mr. SCOTT. Because they thought it was an inferior timber? Do you mean to say that through all that period it never occurred to them to test it and find out?

Mr. HALL. Vehicle work has proceeded largely on traditional lines up to the last few years.

Mr. SCOTT. Do you not think we had better give them an appropriation for education and ask them to wake up?

Mr. HALL. I can not say.

Mr. COCKS. Have they not used this wood for the lower-grade wheels?

Mr. HALL. Yes.

Mr. COCKS. Then it was not wasted.

Mr. HALL. They did not know the strength of the timber they were using in different places.

Mr. COCKS. I do not see that there was much waste.

Mr. CROMER. Have you an estimate of the cost of the laboratory—the establishment of it?

Mr. HALL. Yes.

Mr. CROMER. This \$200,000 is simply to establish the laboratory?

Mr. HALL. That would establish the laboratory and equip it.

The CHAIRMAN. Build the laboratory?

Mr. HALL. Buy the ground and put up the building.

The CHAIRMAN. That is a question that I was going to ask. How much will it cost for the building and how much for the equipment?

Mr. HALL. I should say the building would come to, approximately, \$150,000 and the equipment to \$50,000.

The CHAIRMAN. Has not the Government ground here that we could put it on? There must be. It can not take you more than a few years longer to thoroughly test these woods and give the public the results. There is no use in building a permanent building. That seems to be bad business management. There must be a plot of ground somewhere, even over on the Arlington experimental farm, or some place of that sort, where you could get a piece of ground.

Mr. HALL. It would have to be near the railroad in order to get the materials here. Some of these are large timbers.

Mr. HASKINS. If you had the building and machinery, how long would it take you to make a test of every wood or timber that is on the American market or that enters into building or manufacturing? How long would it take you?

Mr. HALL. That is a very difficult question that you ask.

Mr. HASKINS. You could do it in six months, could you not?

Mr. HALL. No, sir; we could not do it in six years.

Mr. HASKINS. Every stick of timber that grows?

Mr. HALL. Oh, no.

Mr. CROMER. How much additional cost will it be to the Department to sustain this laboratory from year to year?

Mr. HALL. We do not think there will be any additional cost beyond our regular appropriation. We think we could carry it out under the regular appropriation.

Mr. CROMER. The appropriation which you now receive would carry on the work of the laboratory?

Mr. HALL. Yes, sir.

Mr. CROMER. It would only involve this expenditure of \$200,000?

Mr. HALL. To start it and equip it; yes, sir.

Mr. SCOTT. Mr. Hall, following along the line of the chairman's suggestion, have you considered at all the question that some building which the Government now owns might be used for this laboratory? It seems to me rather extravagant to expend \$150,000 for a permanent building when only \$50,000 would be needed to furnish you the necessary equipment. Have you considered whether we might be able to find something already available?

Mr. HALL. We have not hunted for a building which would seem to answer the purpose, because it would require a building to be constructed with reference to the work to be carried on in it. It will have to have special foundations and different parts of the laboratory will have to be fitted for the different work which will be done. Therefore I think it would take the rebuilding of any building that might be found which could be used.

Mr. SCOTT. I understand you only want a roof and sides, after all?

Mr. HALL. No; there would have to be some additions. There ought to be at least two floors, besides a basement, because there has got to be room for fine weighings, for the balances; and room for work such as determining the moisture in the timbers that are tested, because moisture influences the strength of the timber tremendously. You have got to know the percentage of moisture in every stick that is tested. So there is a good deal of fine work to be done. It is not all big, rough work. Altogether it would be a pretty complicated laboratory.

Mr. COCKS. I would like to ask you how moisture affects the timber, whether it is stronger with or without the moisture?

Mr. HALL. It becomes stronger as you dry the timber out. If you take a green stick, or timber, you have 50 or 75 per cent of the weight in water.

Mr. COCKS. Do you mean that after drying that water down until you get the moisture down to 25 per cent, say, there is no change in the strength of the wood?

Mr. HALL. As you begin to reduce the moisture the strength very rapidly grows, so that a piece of timber that has only 3 or 4 per cent of moisture in it will have three or four times as much strength as it would have in the green state.

Mr. COCKS. You speak of moisture in the sense of sap, and not the moisture which it may absorb from the air?

Mr. HALL. I speak of any kind of moisture.

The CHAIRMAN. A green timber would bend more than a dry timber and yet not break, would it not?

Mr. HALL. It will both bend and break more quickly than the dry timber.

The CHAIRMAN. It will sustain more weight and bend without breaking?

Mr. HALL. No; it is relatively very much weaker.

Mr. LAMB. Right there, how do you account for the fact that southern pine when it is bled is as strong as it was before—this Georgia pine that the tar is taken out of? That is a remarkable thing. When you found that out it was a great help.

Mr. HALL. You see, the tapped timber fills up with resin, and we have found that the filling of the pores with resin does not damage the fiber of the wood at all.

Mr. COCKS. What effect does it have upon its quality of resisting decay?

Mr. HALL. Resin is a good antiseptic. It resists decay.

Mr. COCKS. Have you any data on that question?

Mr. HALL. We have no data on that. There is another point about this. We use a great many millions of dollars worth of timber every year in places where timber rapidly rots—telegraph poles, railroad ties, fence posts, mine props, etc. The people are becoming very much interested in preservative treatment. There is no doubt that we can treat timber and make it last twice as long.

Mr. COCKS. The Department has that done already?

Mr. HALL. No; but we have made good progress with it.

Mr. COCKS. All you have to do is to put it in creosote and boil it up, and then let it cool and it is all right.

Mr. HALL. But many railroads have made tremendous mistakes about that.

Mr. HASKINS. Have you made any tests of locust for fence posts?

Mr. HALL. No; we have not.

Mr. COCKS. You did not have to?

Mr. HALL. We did not have to.

The CHAIRMAN. With reference to the relative strength of green and dry timber, you can take a green twig and bend it, and a dry one will snap.

Mr. HALL. Yes.

The CHAIRMAN. That does not apply to timber?

Mr. HALL. No; it would not apply to timber. Green timber will bend more quickly than dry and will also break more quickly than dry timber.

The CHAIRMAN. With the weight directly on it?

Mr. HALL. Yes, sir.

The CHAIRMAN. Well, after all, we are coming to a stone, cement, and iron age, for exterior work at least, and all the wood is now being used principally for interior work?

Mr. HALL. No; as we get away from the use of timber in one line we rapidly develop its use in other lines. There never was a time when timber was used so extensively as at present—in paper making, for instance. There is an enormous amount of timber going in that direction now.

Mr. BROOKS. It is a very much inferior type of timber, is it not?

Mr. HALL. Yes; and it has been found out in the last three or four years that rectangular wooden blocks creosoted make about the best kind of streets we have.

Mr. COCKS. Do you consider that demonstrated?

Mr. HALL. Yes, sir.

Mr. COCKS. By actual test, or by theory, so far?

Mr. HALL. It is in use in many places.

Mr. COCKS. In New York I have seen some of the pavement that is beginning to wear away pretty badly.

Mr. HALL. Still New York is paving with wooden blocks. We are not getting away from wood at all.

The CHAIRMAN. You say we are not getting away from wood at all?

Mr. HALL. I say that, speaking of its use as a whole. We use it for paper enormously.

The CHAIRMAN. We farmers use more stone and cement work than ever before, where we used to use wood. I think we are getting away from wood as a building material very rapidly.

Mr. HALL. Undoubtedly we are.

Mr. FIELD. I would like to know whether the work you speak of will include experiments to determine the longevity of wood and how to treat timbers?

Mr. HALL. Yes, sir.

Mr. FIELD. It is not only to test the strength?

Mr. HALL. No, sir. I meant to answer that when I was speaking about the use of preservatives. A part of this work will be in experiments as to the best way of treating timber with preservatives.

The CHAIRMAN. That has been going on for some years?

Mr. HALL. For some time.

The CHAIRMAN. Have you not reached any definite conclusion on that? I thought you had.

Mr. HALL. Yes; we have reached definite conclusions in connection with some woods. We know that we can treat some woods very readily. The southern pine can be treated very readily. Other timbers we have not found out how to treat at all.

The CHAIRMAN. Will not creosote preserve hemlock and pine equally well?

Mr. HALL. Yes; but you can not get the creosote into the hemlock and pine equally well.

The CHAIRMAN. The hemlock is more open and porous?

Mr. HALL. Yes.

The CHAIRMAN. Can you not boil it into both equally well?

Mr. HALL. No, sir; there is a very great difference in our woods; we have such a variety of woods here. You have to test each kind of timber separately.

The CHAIRMAN. In my opinion it would not justify an expenditure of \$150,000 for a building to make these tests. There are only a certain number of woods that you can test. I would like to see it wound up in five or ten years at most.

Mr. HALL. I am afraid you will not see it wound up in that time. Problems are coming up to-day that were not seen at all five years ago. So I do not think we can carry it out as a definite piece of work and say that when we have tested a certain number of timbers the

work will be done. It is going to last a long time because of the new problems coming up.

Mr. FIELD. Where concrete or iron come into any use that was formerly supplied by wood, notwithstanding that fact double the amount of timber is used for that purpose, is it not?

Mr. HALL. There is more timber used for shipbuilding to-day, a great deal, than when they were building ships of wood.

Mr. SCOTT. Because there are more ships built.

Mr. HALL. Decidedly more ships.

The CHAIRMAN. Yet you see very few wooden ships.

Mr. BROOKS. Then the net result is that the increased use of other materials does not decrease the use of wood.

Mr. HALL. No more than the increase of railroads has decreased the use of horses.

Mr. LAMB. Lumber is going up in value all the while.

Mr. FIELD. All the while.

Mr. COCKS. Lumber is getting scarce.

Mr. FIELD. That is one reason.

Mr. CROMER. Provided the ground was furnished, what do you think the building would cost, Mr. Hall?

Mr. HALL. I think we could reduce it \$25,000. I estimated \$150,000 for the building and ground.

Mr. BROOKS. What kind of building did you contemplate; stone or wood?

Mr. HALL. A brick building with concrete floors.

Mr. HASKINS. About what would be the size of the grounds and building?

Mr. HALL. There are three things that would have to be looked out for. We would have to have it near a railroad, with a switch running into it, so that we could bring the cars to the laboratory. Then we have got to have quite a bit of space——

Mr. HASKINS. You are getting away from the question. You had been discussing the cost of the building, so I asked you what would be the size of the building.

The CHAIRMAN. How large would the building be?

Mr. HASKINS. You said it would be built of brick. How large would it be?

Mr. HALL. A building about 100 by 150 feet.

Mr. HASKINS. How many stories high?

Mr. HALL. Two stories and a basement.

The CHAIRMAN. Do you mean a basement under ground?

Mr. HALL. A basement under ground; yes, sir.

The CHAIRMAN. What would be the use of that? What would you use the basement for?

Mr. HALL. For the very heavy machines. They would be there rather than on the floor. Then, in addition to this building we would have to have a great deal of ground for storing and drying lumber.

The CHAIRMAN. Would you have to have kilns?

Mr. HALL. We should want a small kiln.

Mr. HENRY. Have you contemplated any location about the District of Columbia?

Mr. HALL. No, sir; we have not.

Mr. HENRY. You have nothing to suggest in that respect?

Mr. HALL. No, sir; we have nothing to suggest.

The CHAIRMAN. You say the machinery will cost about \$50,000?

Mr. HALL. I think about \$50,000. That is our best estimate. That would include machinery for testing the strength of timber, and for testing other properties of timber as well—hardness, for instance—and also such machinery as will be necessary in the preservative treatment, and if we put in a kiln to kiln-dry the lumber, that would have to come in.

Mr. COCKS. Is there any way of testing the durability of timber in a laboratory?

Mr. HALL. Yes; we would treat the timber there and then send it out to be put into use to test its durability.

Mr. COCKS. But you can not test it in a laboratory?

Mr. HALL. We have not any way of doing it yet.

Mr. CROMER. I suppose the machinery you speak of is already constructed and in existence. You would not have to invent it and construct it?

Mr. HALL. It will not have to be invented, but it will probably have to be built.

Mr. CROMER. There is nothing like it in existence?

Mr. HALL. No; a good deal of it would have to be built specially; but such machines have been built, so that it does not mean a new thing, I assure you.

Does the committee desire to ask any further questions?

Mr. COCKS. I think we are about run out of questions.

The CHAIRMAN. Are you a graduate of any school of forestry?

Mr. HALL. No; I am not a graduate of any school of forestry. I came into the work before there was any school of forestry.

Mr. PINCHOT. I would like to say that Mr. Hall does not show any need of it.

The CHAIRMAN. No; I simply asked him what school he had attended. He seems to understand the subject thoroughly.

Mr. PINCHOT. May I say a word?

The CHAIRMAN. Yes.

Mr. PINCHOT. I want to say that I believe very thoroughly in the work Mr. Hall proposes, and in the usefulness of it. It has been very carefully worked up by him. He has definite plans for the apparatus and knows just how to use it. Personally I am in favor of the work strongly, because I think it will be immensely valuable. It will save many, many times its cost every year in saving waste and in putting to a better use woods which are either not used at all or which have not been used for the most valuable purpose.

The committee (at 1.15 o'clock p. m.) took a recess until 2 o'clock p. m.

AFTER RECESS.

The committee met at 2 o'clock p. m., Hon. James W. Wadsworth in the chair.

WEATHER BUREAU.

STATEMENT OF PROF. WILLIS L. MOORE, CHIEF OF THE WEATHER BUREAU.

The CHAIRMAN. I think the members of the committee who were here last year will remember that we tried to arrange this bill so that Professor Moore could have his horse and carriage as he had had them for years. I do not know what the difficulty was, really, but in one

of the big appropriation bills it was eliminated. We tried to arrange it last year in this language, on page 5 of the estimates, under "Contingent expenses, Weather Bureau:" "Subsistence, care, and purchase of horses, carriages, and vehicles for official purposes only." We put in the words "carriages and vehicles" last year and thought it would cover it, but I am told the Comptroller rules not.

Mr. HASKINS. What is his ruling about that?

The CHAIRMAN. It is said that he ruled that Professor Moore can not use the horse or carriage for anything of a private nature.

Professor MOORE. That I could not use it for any personal purpose that was not official business, because of the language of the measure.

The CHAIRMAN. It is said that he (Professor Moore) could put a bundle of papers under the seat and carry them around in an official way and that would be official, but that would be beating the devil around the bush. He could put a hod of coal under the seat and claim that he was hauling coal for the Department and it would be sufficient, but that would be beating the devil around the bush. So I propose to insert after the word "only" the words "and carriage and horse for the use of the Chief of the Weather Bureau."

Professor MOORE. My location and the character of my duties compel me to have independent transportation.

I am about 2 miles from the Department, and my work requires attention day and night. Since this amendment, and since it has not been apparently legal for me to use the Government horses and vehicles, I have supported two horses and an open and closed vehicle, and have used them in official work. The expense that I have been put to for that purpose in less than two years has been about \$1,225 for two vehicles and two horses and several sets of harness. I have used them in official work. I can not get along well without independent transportation where I am located. Many times I am called upon to go between the two places, 2 miles apart. Then at night there may be storms or floods, or any imminent meteorological conditions threatening, and I have to go; and I have to go when I am called upon. Wherever I am—at the theater, or at dinner—my secretary always knows my location. I am like a physician. And I find that I can not very well transact my official business without the use of horses and vehicles. So, as I say, I have for nearly two years supported them out of my salary.

The CHAIRMAN. It was the intention of the committee to fix it differently.

Professor MOORE. The committee has treated me very well.

The CHAIRMAN. The idea of suggesting to Professor Moore that he put a bundle of papers under the carriage seat and haul it, and that it would be official! That is beating the devil around the bush.

Professor MOORE. The Comptroller says that I can buy horses and carriages, but under the language of this amendment I can not use these horses and carriages personally.

The CHAIRMAN. I think the committee will agree to that.

Mr. LAMB. Yes, sir.

The CHAIRMAN. We will submit it again, of course. There is an increase of \$10,000 in "salaries, station employees, Weather Bureau," on page 5.

Mr. SCOTT. I beg pardon, but would it not be better to take these things as they appear?

The CHAIRMAN. That is how it appears.

Mr. SCOTT. Here is an increase of one clerk submitted on page 3.

The CHAIRMAN. You mean in the salary roll? You want to take that up first? All right.

Professor MOORE. I think there is an increase of two clerks somewhere.

Mr. HASKINS. Yes; on page 4.

Mr. MOORE. There is an increase of a \$900 clerk and one of class 2.

The CHAIRMAN. On page 3 there is an increase of one in class 2 and on page 4 an increase of one submitted, of clerks at \$900 each.

Professor MOORE. Those two clerks are to handle the increased work.

The CHAIRMAN. Are those two the only increases?

Professor MOORE. Those are the only ones. Those two clerks are to handle the general increase in the central office due to establishing four additional stations on the outside.

The CHAIRMAN. That is due to what?

Professor MOORE. Due to the increased work at the central office, which is due to the fact that it is proposed a little further along to create four additional stations outside. The work of every station has to come to this office for compilation, verification, and revision.

The CHAIRMAN. Then we come to page 5, "Salaries, station employees, Weather Bureau," the first place there is an amendment proposed, "and the employees of the Weather Bureau outside of the city of Washington may hereafter, in the discretion of the Secretary of Agriculture, without additional expense to the Government," be granted leave of absence, etc. It makes the Weather Bureau leaves of absence conform to the others in the Department.

Professor MOORE. It does not change existing conditions at all. I did not ask to have it done. I think it is done to make the phraseology the same regarding leaves of absence throughout the whole Department.

The CHAIRMAN. We overlooked it last year. We meant to make it uniform. You ask \$10,000 increase.

Professor MOORE. That is to cover the salaries of the four additional Weather Bureau stations. We have requests for a great many additional Weather Bureau stations, but as in years gone by, it has been thought possible to increase by only a few each year. Some years we have authorized as many as eight, and some years six. I think if you authorize the four new stations it will fairly keep pace with the growth of the service.

Mr. BROOKS. Are you willing to say where you propose putting them?

Mr. MOORE. Well, I will say this. We have easily 50 applications for additional stations. Out of those 50 there are 10 or 12 that would have a legitimate claim—10 or 12 stations that I think might be authorized—and if 4 are authorized I should pick those that I believed to be the most important. I can give you the names of those stations if you want them, but I think you would have less discussion if you did not know the names of them. I am free to say that I do not now know which of the 12 we will select.

Mr. BROOKS. I would like to ask another question right there. I think you have established a number of stations which are not full

stations, where they are in cooperation simply. Is there any provision for that number to be increased?

Professor MOORE. Take the station at Corona. That station costs only about \$25 a month to maintain. The main thing there in forecasting for Colorado is to determine when the snow is falling, and what the temperature is in some of the high mountain regions, for use in making the forecasts for the regions to the south and east. We get the information we need there without establishing a full and highly paid station—at an expense, according to my recollection, of \$25 a month. We could not pay \$125 a month for establishing any such special station.

Mr. BROOKS. That answers the idea that has been advanced a good deal in the committee, because that station is really largely maintained by cooperation. In other words, there are other sources of supply than the Government.

Mr. MOORE. We established that station in addition to that which it was understood last year we would establish. We have established the full number that you authorized last year, and this one is additional. We do not want you to take that as evidence that you can reduce our appropriation safely, but as evidence of our good administration. I will say this, that among the number of places in the West that are anxious to have stations there is one far down in Nevada on one of these new lines of railroad that is going down through there—

Mr. BROOKS. Down on the Erie line?

Mr. MOORE. It is down not far from The Needles. There are no interests there to serve. The local interests would not profit much by a station. That station would be valuable in forecasting for the regions east. So that is one place where we should probably put a station if these four new stations were authorized.

The CHAIRMAN. Of course the danger, under pressure, as we know, is to multiply the stations unnecessarily.

Professor MOORE. I will say this: Lansing, Mich., and Fort Wayne are two cities that in time will probably receive Weather Bureau stations. I do not know whether they would get any of these next year or not. There are several good places.

The CHAIRMAN. How large is Fort Wayne?

Professor MOORE. About 60,000 in population.

The CHAIRMAN. The resident of Fort Wayne picks up his morning paper and really gets his weather report, does he not?

Professor MOORE. He gets the weather forecast.

The CHAIRMAN. With the actual station there there would not be furnished any news beyond what the local papers are giving to-day?

Professor MOORE. There would be, and that is what they are after.

The CHAIRMAN. What more would he get by the establishment of a station there?

Professor MOORE. Without a station he would get last night's forecast in the papers this morning. But if he had a local station he would get the forecast at 10 o'clock this morning—he would receive both in his papers. Also there is written out and posted in various places reports concerning the state of the crops and the weather. We also have a weather map that contains a synopsis of the weather all over the United States, and that weather map will furnish details of the weather this morning at 8 o'clock. That will

be valuable to the commercial interests. They want the station, and in a city of that size I am inclined to think they ought to have it, notwithstanding the fact, I am free to say, that I have no particular need of that observation for the purpose of making the forecast farther east.

The CHAIRMAN. You see, if you apply that rule, you would have to be multiplying stations tremendously.

Professor MOORE. We practically have stations now in every city of 100,000 population, and in fact, in nearly all where they have over 75,000 population.

Mr. SCOTT. When, in your judgment, no further stations are needed, you will quit estimating for them?

Professor MOORE. Yes; but that time will come when the country ceases to grow. As soon as a city gets to the point of 75,000 or 100,000 population, the people say right away that they want one of these stations. Toledo, Sandusky, Cleveland, and Columbus, Ohio, have weather bureau stations, and they get all of these details of the weather at 10 o'clock in the morning. Their commercial interests know in which direction they may ship with safety, and they have an opportunity to apply this weather data to their various industries, which they would not have unless they had the station right in their midst. The desire to get that information at the very earliest moment is so intense that I have had to adopt a very rigid rule, taking a uniform time clear from New England westward to the one hundredth meridian, and compelling our local observers to enter the data on the glass maps before the commercial organizations at precisely the same minute. We found that if Chicago had part of the data on its map ten minutes before it was on the map at Kansas City, a private message would shoot through to Kansas City before it was posted there, and some fellow would have the benefit of the information before the board had it. Hence, have been compelled to adopt this very rigid rule so that one board of trade shall not get the information on its weather map before the others, for it seems to be a very important thing to them.

Mr. COCKS. How?

Professor MOORE. If there is a drought in the cereal belt, and the weather indicates rain, the market may change several points as soon as it is known. If the corn is in the silk, and a cold wave starts up in North Dakota, or some other place, the moment the weather map shows it the price of corn is affected.

The CHAIRMAN. That is, for speculative purposes only?

Professor MOORE. I guess it is; and a great many others are legitimately interested in manufactures, and want to know what the coming prospects are, so that we have to hold our men up to rigid discipline.

Mr. LAFEAN. How do you arrange to advise the various boards of trade at the same time? How do they get the information?

Professor MOORE. In each board of trade we have a big glass map. The information arrives there a little bit before 9.30, Washington time, or 8.30, Chicago time. They get there the same reports that have gone to the Weather Bureau station itself. Up at the Weather Bureau station they are preparing the printed map that will soon go out.

At the board of trade the man is entering the data on the big glass map for the interest of the commercial people. We compel the man who enters the data on that map, no matter if he has information in his hand, not to give it to any member of the board before he enters it on the map at 9.30, Washington time. Then every board of trade has the same information placed before it at precisely the same moment. We have had to discipline men for disobeying that order and letting some man see the weather report before the specified time. You can easily see that if a city has a Weather Bureau station they do get details of the weather that they do not get through the daily forecasts that are published in the press. Our trouble now at the Weather Bureau is that every little city—not every one, but many of them, and many places where they do not need an observation, and where the local interests are not sufficient to justify the Government in establishing a full observatory—will want the Government to go to that large expense.

There are two or three communications there right now from newspapers and from small associations who demand that we shall put one of these big glass maps before them every morning. We answer them that their conditions are not important enough to justify the Government in constructing that map and sending an expert there at from ten to twelve hundred dollars a year to construct that map for them. We have a rigidly drawn line, where we believe the returns to come to the people will not justify the Government in going to that expense. So you see there is a good deal of authority vested in the Bureau.

Mr. SCOTT. Are there ever any offers made, from any localities, to defray the expense privately?

Professor MOORE. There are occasional offers made. The people say: "If you will construct the map we will enter the data." We decline those offers for the reason that we know how hard it is to develop our own men to do this work accurately, and we do not want to put the Government's stamp on anything that the Government does not fully control. Here are some letters now that I have written, declining to construct maps in different places, where they have gone over my head to the Secretary of Agriculture to compel me to install these glass maps—places where I do not believe the expense would be justified. We are concerned in holding down the growth of the service to a conservative growth just as much as you gentlemen are, and perhaps more.

The CHAIRMAN. Do you have any more trouble about using weather signs for advertising purposes?

Professor MOORE. No; we have secured two or three convictions, and now there is not much of that done. There is not much using of weather forecasts for advertising purposes now. The quack medicine manufacturers used to annoy us a great deal by using our Weather Bureau symbols and by putting out forecasts that purported to come from the Government. We stopped that.

Mr. HASKINS. That has been eliminated now?

Professor MOORE. Yes; we have secured two or three convictions.

The CHAIRMAN. Now we will pass to "General expenses, Weather Bureau." You ask for an increase of \$15,000 there.

Professor MOORE. Ten thousand dollars of that is for the supplies.

The CHAIRMAN. "Of this amount, \$10,000 is necessary for the sup-

plies, equipment, and incidental expenses required for additional stations.

Professor MOORE. These four additional stations.

The CHAIRMAN. "And \$5,000 for telegraphing reports, forecasts, and warnings on account of the growth of the service."

Professor MOORE. Yes. As the boards of trade increase their business they are continually asking for more details of the weather. We do not telegraph the entire set of observations from our nearly 200 stations to all the local stations. We telegraph to enough stations to give them a good idea of the weather over the whole country. Then in comes a board and says, "Here are two or three stations here of which we have no report. Our board has important interests and we would like that weather report." As a rule we will add those additional reports at the request of a board of trade. That goes on from one board to another. There is a continual increase in that way—a legitimate increase. As the country grows there is more and more distribution of the weather information. As an illustration of that, I will say that we now get a distribution of forecasts every morning to over a million addresses, without expense to the Government, through the various telephone systems.

At first they insisted that we should pay the telephone company for the transmission of the weather forecasts, as we pay the telegraph companies for the transmission of the same information. It looked like they had a pretty good claim, but we answered, "No; we will pay for a telegram over a telegraph line, to send the forecast to the headquarters of your telephone company—your rural company—and we expect you to send that over your line without expense to the Government, because it makes your rural service of much more value to the farmer. It will be a big advertisement for you." They contested it for some time. I saw that if we began to pay for telephone messages we would have to use up practically the whole appropriation in the payment of telephonic tolls, if we kept pace with the demand, and I was of the opinion that if we could get two or three big telephonic systems to send the forecasts from their headquarters down their rural lines that would make the rural phones so much more valuable that they would conclude they could do it without expense to the Government and make a profit. It finally occurred.

We induced one company after another to do it. Their subscribers began to say, "That is one of the best features of the system," and the farmers would say, "I will put in a telephone to get the frost warning, or the cold-wave warning at the very moment it is reported." As a business proposition the telephone companies were compelled to distribute the information, and we get it done without expense.

The CHAIRMAN. How do they do it? Do they call up all hands at the same time?

Professor MOORE. They can call up all hands at the same time if the order is sent over the line, but otherwise every subscriber, if he will call up the central, can get it sent to him separately.

The CHAIRMAN. Yet in these days of the daily papers, through the rural free delivery, they would get it?

Professor MOORE. They may get it, or again they may not. There is a gradual legitimate increase of expense for the distribution of

information, so I put in the estimate of \$5,000 to meet that. and \$10,000 for the equipment of the four stations, making \$15,000.

Mr. LAMB. The rural free deliveries distribute it and get it out. do they not?

Professor MOORE. Yes; quite a number do. There is no other item of increase in the bill that I know of, Mr. Chairman.

The CHAIRMAN. You have a new item in at the top of page 7, "Cables and land lines, Weather Bureau: For the purchase and installation of a cable between Devils Island, Lake Superior, and the mainland of Wisconsin, and for the building of connecting land lines including necessary labor and material, \$22,000."

Mr. SCOTT. I thought the last bill carried a fund for the installation of a cable between Devils Island and the mainland.

Professor MOORE. It did, but it was cut out, I think, in the Senate—or cut out by the conferees.

The CHAIRMAN. I know we did not cut it out. We put it in.

Professor MOORE. It did not become a law.

Mr. SCOTT. You do not mean to tell us that the Senate cut anything out of this bill?

Professor MOORE. They either cut it out or did not pass it.

The CHAIRMAN. I was under the same impression that Mr. Scott is, that it was in the last act, but the clerk says it was not.

Professor MOORE. I think your committee cut it out. That is my recollection. I think you discussed it, and agreed to it—

The CHAIRMAN. There must have been an awfully good reason for cutting it out, if we did. What was the reason; do you know?

Professor MOORE. I do not know. I was not here.

Mr. BROOKS. I think it went out on the floor on a point of order.

The CHAIRMAN. I think you are right.

Mr. BROOKS. Quite a number of things went out on that.

Professor MOORE. Yes; that was it.

I will say, as to the necessity for that cable, that the island is, as I recollect, about 80 or possibly 100 miles east of Duluth, and it is right in the fairway of vessels. They have had a number of wrecks from northeast winds driving up a heavy sea into the western neck of the lake there, and in a number of cases if they had had a cable over to that island, and somebody there who could call for assistance, they would have saved the vessels and several lives.

The CHAIRMAN. Is there a light-house on the island now?

Professor MOORE. There may be a light-house there now. I am not certain.

Mr. SCOTT. There are no commercial interests that make it likely that the cable will ever be established as a private enterprise?

Professor MOORE. No. There will never be more than 10 or 15 people on this island, probably; but the marine people claim that they will get a great advantage from being able to call for help in case of distress, and, as I say, it is a place where distress is very likely to occur. Where the lake narrows down at the western end, and where the northeasters drive in heavy seas, the vessels are driven in and wrecked there.

The CHAIRMAN. Warnings will not prevent that?

Professor MOORE. Warnings will not prevent that, but in fair weather all vessels passing this island will be reported to their owners in Duluth, and it will give several hours' warning to be ready for

docking the vessels. They claim that that will be one of the most important things they will get out of it.

The CHAIRMAN. Do they not get that now?

Professor MOORE. No, sir.

The CHAIRMAN. Those steamers, except during the period of storms, in the fall, run almost on schedule time. Of course during a heavy gale in the fall that may be changed, but during seven-eighths of the open-navigation period they run practically on schedule time?

Professor MOORE. The big steamers do, but the small ones do not. The large steamers run right through most of the storms, but other craft will tie up when they see the danger signal.

Mr. COLE. You can not use the wireless telegraphy there?

Professor MOORE. Yes; we could use the wireless telegraphy there, but I am of the opinion that the wireless telegraphy is of the more expensive and least efficient at any place where you need permanent communication. I am not only of that opinion, but I know it is so.

Mr. BROOKS. Two years ago you were conducting a series of quite interesting experiments in wireless telegraphy. Are you keeping them up?

Professor MOORE. No. If you remember, two or three years ago, the President appointed a board to consider the subject of wireless telegraphy. We had devised an efficient system of wireless instruments. They were patented, and we have the apparatus of the Weather Bureau to-day. Just about that time, as we were beginning to establish wireless communication at our various marine Weather Bureau stations for the purpose of communicating with passing vessels, the Navy claimed that they ought to control it. They said that in case of war it would be better for the military arm of the Government to control all communication from the ocean to the shore, and they made a pretty strong claim.

The President appointed a board composed of three naval officers, including Admiral Evans (chairman), and General Greeley, of the Army Signal Corps, and myself. As a result of the deliberations of that board, the Weather Bureau agreed to abandon all its coast stations and to turn over to the Navy the entire charge of the coast wireless telegraphy. The Navy, in exchange, transferred to the Weather Bureau all its work on ocean meteorology, which they had been doing independently for some years. So a very fair division was made. The Weather Bureau would have liked to have continued in the wireless work, and to have fully equipped its coast stations; but the Navy agreed to handle ocean weather business. As a result, there was a benefit which accrued to the Government, because we were enabled to eliminate the duplication of work due to two departments, the Hydrographic Office (of the Navy Department) and the Weather Bureau doing ocean meteorological work.

Mr. SCOTT. When you took over the ocean meteorological work, did you substitute your force for the naval men that had been there?

Professor MOORE. We did. Our local observers did the meteorological work formerly done by the Hydrographic Office.

Mr. SCOTT. Coming back once more to the Devil's Island proposition, I understand you to say that the two principal reasons why this station is wanted, are to send for help in case of vessels being in distress and to send notice in advance of vessels passing.

Professor MOORE. Yes; and also it is a good location for the display of warnings for the storms that may occur, and the observation will be of some value to the Duluth local forecaster; but neither one of the last two considerations, in my mind, would justify the expense of establishing the station. The station must be established, if at all, because of the necessity to commerce of having the vessels reported and to receive calls in cases of distress. I will say that I have received a great many communications from vessel masters and marine associations asking that this service be established there.

The CHAIRMAN. There must be a light-house on that island.

Professor MOORE. There may be; I do not know as to that.

The CHAIRMAN. We can get that at the Light-House Board, can we not?

Professor MOORE. The Light-House Board will give you an answer at any time, if you ask them concerning Devils Island, Lake Superior. I would say this, Mr. Chairman: I was on a board appointed by the President to consider the whole matter of wireless telegraphy internationally. Three of the members of that board were sent by the President to Berlin to take part in the international conference, the object of that conference being to adopt uniform license regulations that would compel each and every ship carrying wireless instruments to cooperate one with the other. As it is now, a ship carrying another make of instrument will not receive a message from some competing company. As a result, a vessel in distress down on the Atlantic coast sent a message that was received at one of these wireless coast stations, saying that the vessel was in distress—either out of coal or had broken the rudder, I have forgotten which—and they wanted the owners to be notified so that help might be sent. That message was received by a company which was competing with the company that had the instrument on the vessel, and it never was delivered to the owners because of rivalry.

Such a thing should not be allowed to occur. There should be a national and an international regulation that would compel every ship carrying a wireless instrument to receive and transmit everything it gets, no matter from what source it comes. In this conference, in which I had some part, I had written in the demands which the American representatives were to make over in Berlin—tentatively, of course—that every vessel of a certain tonnage would be compelled to carry wireless instruments, and also be compelled to take midday and noon observations of the pressure of the air and the direction of the wind and flash it out, and to repeat every observation of weather received from any other vessel. By that means, in a few hours, a complete weather report would be swept into both continents, Europe and America—the weather data from all over the Atlantic. At Washington we could take that data and chart it right here, giving the location of each ship sending the message, and we could determine the location of all storms dangerous to navigation simply by the same methods by which the observations were collected on that ocean. The information would be flashed back from ship to ship.

There is a storm, we will say, of a destructive character, south of the Bermudas, moving toward the northeast, and all the rest of the ocean is clear and safe. We then know that, to a certain point, ocean travel will be as safe as lying on that couch [indicating]. But in

order to do this there must be power vested in the various governments, by international agreement, so that all vessels will obey the same rule.

Mr. SCOTT. What was the outcome of the conference at Berlin?

Professor MOORE. Our people are back, but I have not found out how much of this meteorological part was agreed to at the conference there.

The CHAIRMAN. You were not one of the three? You did not go over?

Professor MOORE. I was to go, but I could not get away.

The CHAIRMAN. I have been informed by the clerk that he has ascertained that there is a light-house on Devils Island.

Professor MOORE. We have arranged now so that we are getting wireless observations of the weather from some of the transoceanic ships. Some days we will get half a dozen, out at sea three or four hundred miles, and they are valuable to us.

Mr. LAMB. How do you catch them?

Professor MOORE. They flash their observations in to the shore. Only four or five days ago we received a wireless message from a vessel 300 miles due west from San Diego, Cal., which showed an abnormally low barometer. In connection with the San Diego barometer reading we were able to determine that there was a storm there. We predicted rain for lower California, and it occurred within thirty-six hours. That rain was over the southern part of California. That is merely a little illustration. I think it has little or no value on the land. Land communication is better, cheaper, and more efficient.

Mr. LAMB. What is that?

Professor MOORE. I say the metallic communication on land is cheaper and more efficient than the wireless method.

Mr. SCOTT. I presume that this message which you say came in from west of San Diego was caught by some station near San Diego?

Professor MOORE. It was caught by some one of the wireless stations. It may have been received at the Farollone Islands and telephoned to our San Diego office.

Mr. BOWIE. That is not all the money you want, is it?

Professor MOORE. I am very modest this time. You have treated me well in years gone by. I presume, Mr. Chairman, in the last ten years there have been probably 45 new stations of the Weather Bureau established. Some years you have established quite a number, so we are getting to the point where we do not need to establish very many each year. There will always be here and there three or four which ought, probably, to come in.

The CHAIRMAN. The committee will notice on the bottom of page 6 "Buildings, Weather Bureau." That is the same item we have kept in for several years "for the purchase of sites and the erection of not more than 5 buildings for use as Weather Bureau observatories," and so forth. That represents the progress, you might say, of the Weather Bureau plant.

Professor MOORE. Yes. We have now between 40 and 50 of our own buildings. I was told yesterday that owing to the increased cost of material or the increased cost of lumber we probably would not be able to buy sites and build more than three, but we are progressing all the time. I have here a report of a building that we constructed at a little place in Arkansas last year—Bentonville. It cost about

\$5,500. The same building in another city, where the Secretary authorized me to construct a building—

The CHAIRMAN. What city?

Professor MOORE. Anniston, Ala. The bids for constructing that building were \$12,996, \$9,998, and \$9,763.

The CHAIRMAN. For the same building?

Professor MOORE. For the same building. At Birmingham, Ala., where we got bids for a building, we asked for bids on the same specifications we had at Springfield, Ill., where the building cost a little more than \$10,000. The result of this was that the lowest bid was about \$17,000.

The CHAIRMAN. What is the use of having two stations, one at Anniston and one at Birmingham? What is the geographical location of those two towns with reference one to the other? One is right south of the other, is it not?

Professor MOORE. One is an observation station.

The CHAIRMAN. One is right south of the other?

Professor MOORE. Oh, no. Anniston is about midway between Atlanta and Birmingham.

The CHAIRMAN. Which way is it?

Professor MOORE. It is east of Birmingham—southeast.

The CHAIRMAN. How many miles?

Professor MOORE. I could not tell you, but it is about midway between that and Atlanta, as I recollect it.

The CHAIRMAN. Mr. Bowie says that Anniston and Birmingham are only 63 miles apart.

Professor MOORE. We have some that are nearer than that. I would like to say something more on this matter of buildings, Mr. Chairman. I want to say a little more in regard to the increased expense of erecting these buildings. At Sandy Hook, where it was the intention last year that we should erect a building this year, we advertised in three papers and received no bids. We sent a local man out to solicit bids, and he finally got a bid for that building of at least 100 per cent over what we thought the building ought to cost. As a result, I recommended that the Secretary of Agriculture cancel all these bids. They have been canceled, and I believe it is apparent that we can not construct these five buildings for \$53,000. You ought to increase that to \$60,000.

The CHAIRMAN. No; under the language of the bill it says not to exceed five.

Professor MOORE. We can not construct five. It was rather the idea that we would get five; but we will probably get not more than three or four of them.

The CHAIRMAN. You will be progressing fast enough all the time?

Mr. SCOTT. Have you said all you care to about this question?

Professor MOORE. Yes, sir.

Mr. SCOTT. Have you anything special to report in connection with the Mount Weather enterprise?

Professor MOORE. We have continued our work there. Our principal building is now under roof. That is the physical laboratory. Our kite and balloon work is well along. We are getting a good series of observations very high up in the air from Mount Weather. Our magnetic observatories are completely installed and are working nicely. The physical laboratory is nearly under roof, and we will

begin this spring to install the apparatus in it. There is still needed one building more at Mount Weather, and that is what we will call a solar-physics observatory. It is a small building and will probably cost \$8,000 or \$10,000. The apparatus to go in it will probably cost \$10,000 or \$15,000 more. That observatory will be used to measure the absorption of the earth's atmosphere. We have found what we did not know a few years ago, that the atmosphere itself absorbs fully one-half of the entire solar energy, so the heat of the air is a very important matter to the meteorologist.

When we read the temperature on a thermometer in a room, or out in the sun, even, we measure only the intensity of the solar energy. If that intensity fell on that book or on that glass or on this woollen cloth, the same quantity falling on these various substances would give an entirely different temperature. We are only measuring the temperature of the air with our thermometers now. At this institution we will measure the quantity instead of the temperature. We will measure the quantity that reaches the earth and the quantity absorbed by the air. You may say, "How do you know; how can you tell?" It is not such a difficult problem after all. We are able to measure the absorption of the earth's envelope by taking a measurement of the quantity that reaches the earth with the sun at different angles. By a very not very difficult mathematical computation we can determine what the quantity of absorption is of the earth's air. The amount of absorption is due to the amount of water vapor and dust in the air. Dust? You say the air is just as diaphanous as this piece of glass, but the air is full of dust. At that institution we will measure the quantity of heat in the air.

That is absolutely essential, if we are to gain any real thorough working basis for the art of weather forecasting. We must go to the science that is back of our art. There is no institution in the world that is doing this work as we want to do it at Mount Weather. We are spending a little money there to make an experimental station—one out of the 100 or more stations of the Weather Bureau—that we are morally certain will bring a good result for the expenditure which this committee has from time to time authorized us to put in that institution.

The CHAIRMAN. How much money have you spent there up to date?

Professor MOORE. Last year we had spent \$119,000 or \$120,000. Since then we have spent probably \$25,000 more, or maybe \$30,000.

The CHAIRMAN. Making a total of how much?

Professor MOORE. That would make a total of \$150,000.

The CHAIRMAN. No; it must be more than that, because last year it was pretty nearly \$200,000.

Professor MOORE. No; last year it was \$119,000 and some odd dollars. You asked how much it would cost, and I said inside of \$225,00; and you said, "The members of the committee will remember what he has said, that he will not spend more than \$225,000." We will probably spend less than that amount.

Mr. SCOTT. I thought your estimate was originally that you would not spend over \$200,000?

Professor MOORE. Only in recent times have we begun to realize what an important function the minute dust mote that is in the air

has in the problem of air physics, and in our physical laboratory that we are now putting under roof we will have the delicate apparatus that will count the number of dust motes that are in this room; and I will say that the number in this room now is 3,000,000 or 4,000,000 per cubic centimeter—about a third of an inch. You think this impossible. You say, "How can you count them?" We have counted as high as 30,000,000 in a centimeter, with the use of the Bunsen flame; but you will find in large rooms like theaters and hospitals and other places of large assembly 5,000,000 dust motes per cubic centimeter. Out there in the park there are several hundred thousand per cubic centimeter. Up on a high mountain it is less, and out on the ocean it is less. These dust atoms are nearly all vegetable, and not mineral.

We have learned one important function. That is this: If you were to eliminate the dust motes from this room—if there were no dust in the air here—each one of you gentlemen would be like a star stuck up there in a black firmament. If you have observed, when there is no moon, on a perfectly moonless night, if you look at the stars they are like bright, glittering objects stuck into a black background. If there were no dust motes in this room each one of you would be visible, but the interval between would be inky black. You would see the walls, but the space between the walls would be inky black. So, if you were to do as I have done with a box in experimenting, cut a hole in the wall here, and one in the wall there [indicating], leave the room dark, and go out and send a powerful electric light in through that hole and out through that one, you would not see it at all. You could not illuminate the room without dust motes.

Mr. Brooks. Are those motes refracting media?

Professor MOORE. They refract light. They take up light and scatter it and diffuse it, and thus illuminate the whole space.

You say, "What has that to do with meteorology?" We have gone further, and we find that without this same atom you could not produce rain. The presence of dust motes in the atmosphere is such that probably every little minute droplet has a little atom for the nucleus. You could not get that fog out there, as you see it now, without these dust motes at the center of each little minute droplet. We want to study, in the physical laboratory, and count up these motes. We want to take samples from here, from the Farallones, from New York, and so forth, and analyze those motes. We want to count them every day and determine their number. We want to count them before the rain falls, and even during the falling of the rain. That is only one of probably, I might say, 100 problems that I could outline to you that we want to investigate at these experimental stations up there. That will keep employed probably 25 men all the time, and will cost probably, for installation, in the neighborhood of \$200,000.

Back of all this weather forecasting is the science of which we know almost nothing; but, as this committee agreed several years ago when I told you something of the purpose we had in mind, it would be better for us to spend a little money at one first-class experimental station than to be content with doing it in a rather imperfect way.

Mr. Scott. You say these dust motes are vegetable in origin?

Professor MOORE. Almost entirely.

Mr. Scott. They are not in the nature of bacteria?

Professor MOORE. No; they are separate and distinct from bacteria; but bacteria attaches itself almost entirely to these dust motes. You find them associated together.

Mr. BROOKS. What is the original source of these vegetable dust fragments?

Professor MOORE. They are from the earth itself, and probably from the great cosmos, and from meteors. Probably hundreds and thousands, and millions of them strike upon our atmosphere every twenty-four hours. The majority of them, by reason of their fearful velocity, are consumed by striking the top of our envelope of air.

They will form some of the dust; and they are not all mineral by any means. Some meteors shoot through our atmosphere and escape from the attraction of the earth. Most of them are consumed. A great many of them reach the surface of the earth, and they are then called meteorites. There is one source of dust. Then, it is more than probable that in the outer space there is contained more or less what we call cosmic dust. That is the dust that we came from, the same place we came from, on our earth—we do not know exactly where. But the function of this dust is a most important one to meteorologists. Again we have learned that the gases of the earth, separate from the dust entirely, are broken up into atoms, and the broken up atoms of gas form most of these very wonderful radiations that you hear about, like the radiations that come from radium. They are shot out into space. They are not radiant light; they are radiant matter.

We do not know just what the function of the broken-up atoms of gas, and the function of the dust atom itself, is in regard to precipitation. We want to know. That is what we will take up at this physical laboratory. These broken up atoms we call ionization. They are supposed to have an important function in rainfall also. Then we want to determine more accurately the methods of measuring wind velocity.

Mr. BROOKS. Is this dust problem in any way related to the presence of smoke in cities?

Professor MOORE. The smoke in cities is composed largely of the mineral dust and sulphurous gas. It, of course, furnishes a part of the dust that is in the air, but that dust is large in comparison to the dust I am speaking of.

Mr. BROOKS. Will these researches that you are talking about, in their ultimate results, lead you to deal more successfully with the dust problem in cities?

Professor MOORE. Yes; while it would be a little bit foreign to our work, it might incidentally occur that we would get a better method of combustion, something that would more perfectly consume fuel and leave no residue, like that which pours out of the chimneys now. You know the dust keeps off the sunshine. Disease bacteria will thrive under smoke-filled air, when it would be completely destroyed by the action of sunlight.

There are a great many lines of inquiry that we want to take up at Mount Weather. Some of them may not bring immediate results, but that is the one place where we want to have free opportunity to experiment and to do things that may now appear foolish, but which ultimately may be useful. It is the only place in the service where we give ourselves over to experiment.

The CHAIRMAN. How many people have you employed at Mount Weather now, Professor?

Professor MOORE. We have quite a number of mechanics now, because we are moving, and the laborers are still working. The permanent working force—

The CHAIRMAN. I mean the scientific, technical force?

Professor MOORE. There are quite a few laborers who help them. For instance, we have five or six laborers at about \$40 a month, doing the heavy work around, helping these technical men. The working force there is about 14. I could get it for you in a minute, but it is about 14.

The CHAIRMAN. What does the force consist of?

Professor MOORE. There is Professor Humphreys.

The CHAIRMAN. Does he live there winter and summer?

Professor MOORE. Yes, sir; the force remains there the entire year. Professor Humphreys was formerly professor of physics at the University of Virginia, and he came from Johns Hopkins. He was a Ph. D. man there. He is the supervising director. Under him we have Doctor Fassig, another Ph. D. man. His work is in connection with the upper-air problems. He sends up the kites and balloons, etc. As assistant to him is Dr. Cleveland Abbe. Doctor Abbe is a Ph. D. man also.

The CHAIRMAN. They all get their houses and living?

Professor MOORE. Quarters, fuel, and lights are furnished them. Then Mr. Miller, our magnetic man, a young man who has only been about four years in the service, receives \$100 and allowances.

The CHAIRMAN. Quarters?

Professor MOORE. And his quarters. Allowances means quarters, fuel, and light. Then we have an observer, clerk, and telegraph operator who receives \$1,000.

The CHAIRMAN. And his quarters?

Professor MOORE. They are all furnished with quarters and heat.

The CHAIRMAN. In what shape are these quarters?

Professor MOORE. They all live in the upper part of the administration building at the present time. We are building one cottage and office building adjacent to the physical laboratory that will furnish living quarters and office room for Doctor Fassig, the man in charge of the upper-air work. That will take him out of the main building.

The CHAIRMAN. Can they keep house in those quarters?

Professor MOORE. Yes. There is only one man who is married, Doctor Fassig. We are putting him in the cottage, where he will have four rooms above and a dining room and kitchen below.

Mr. LAMB. I would like to hear more about those balloons. It would be interesting.

The CHAIRMAN. Do these men remain there constantly?

Professor MOORE. They remain there continuously, except that I have just given Doctor Fassig leave of absence for six weeks to complete a course of lectures that he began several years ago at Johns Hopkins, before I got him to come to Mount Weather, and not wanting to break them off short I have allowed him to go back to take up for six weeks the course of lectures. A lot of the work that pertains to Mount Weather he is doing at the laboratory in Johns

Hopkins. I go up there once in a while, and in the summer for a couple of months.

Mr. COLE. Do you keep records of the results of your scientific investigations?

Professor MOORE. Yes, sir; but we have been largely concerned so far in building and creating. It is only within the last year that we have gotten any apparatus working.

Mr. COLE. Is that in any of your reports?

Professor MOORE. No; I do not think it is. In my report of last year, the year ending 1905, I devoted the whole report to writing up the history of Mount Weather and its objects, somewhat on the line I have given you here. That will be found in this report.

Captain Lamb, you were speaking of the kites and balloons. We have there a very advantageous location for getting upper-air readings. There is a valley on each side of us there, the Loudoun Valley and Shenandoah Valley. The mountain projects up above these two valleys about 1,200 feet, and the valleys are about six or seven hundred feet above sea level, giving 1,800 or 1,900 feet altitude.

We purpose to put up apparatus with our kites and keep it there just as long as we can, at a considerable altitude, for the determination of the thermal variations in the temperature. From some preliminary surveys that we have made we are certain that at an altitude of 3,000 feet above that mountain you will find it just as warm at midnight as it is in midday in July in the hottest weather—practically the same. All the details of that we do not know. In another year we shall keep our instruments up all summer, and keep them up as much as we can in the winter.

We are making now an experiment with little balloons about that diameter [indicating], some made of rubber and some made of paper; and we have a power plant there, with a 35-horsepower engine, and an electrolyzer, for decomposing water and getting the hydrogen gas. We have a tank for storing the hydrogen gas and we purpose to compress that gas and send it in cylinders to a number of western stations, and ultimately to equip a number of those stations with little collapsible balloons. We have a little aluminum case which holds a barometer, a thermometer, and a hygrometer, and the balloon will carry this case up into the upper air. We purpose, when we have developed our balloons to a little higher degree of efficiency—the instrument case having been already developed—to equip a large number of our western stations with them. It is a new way of exploring storms. It is a patented device. We will pick out a given storm that overlies the Rocky Mountain Plateau, or a given cold wave, and we will explore that storm. We will say that that [indicating] is the storm. It is extending from the Mississippi River to Denver and from Duluth to northern Texas.

Then by telegraphic orders I will direct three of the stations, in each quadrant of the storm, to liberate a balloon, say, at 9 or 10 o'clock. They shoot right up through that storm and they record the pressure, the temperature, and the humidity. When the balloons get up to an altitude of 10 miles they will explode. We know, because we can compute what the pressure will be at 10 miles high, and get pretty close to it. The pressure of the gas is increasing on the inside and the pressure on the outside is decreasing, until it gets to a point where it will explode. We can explode them at 10 or 15

miles high. Then the instruments slowly descend to the earth, with the records. We have pens to draw lines on the records filled with ink, which will work from 100° below zero to 100° above. It is pretty difficult to get ink to work under those conditions. When this case of instruments is found by anybody it will be returned. Most of them will come down in the daytime and will be seen. There will be a reward for the return of the instrument to the Weather Bureau. I do not know what the reward will be as yet; probably \$3 or \$4, or maybe \$5. They will all go back to Mount Weather. There they will be opened. And in this way, for the first time, we will be able to study the mechanics of the storm itself. That is the only way we can get the knowledge.

Mr. Brooks. Are there any other Governments doing that kind of work?

Mr. Moore. There are a number of European stations, independent stations, that fly kites and fly balloons. They have a number that have gotten temperature records up to 10 miles high, temperature records of over 100° below zero, but there is no Government anywhere else in the world that could plan a system like that, because they have not the stations under one central authority and have not the territory under one Government.

Mr. Cocks. Russia would have.

Professor Moore. But she has not a telegraph system and does not take as kindly to those things as you gentlemen do.

Mr. Field. With reference to the rainfall there is a question or two I would like to ask. A year or two ago I made inquiry of you with reference to the prevailing idea that in the arid country the rainfall is gradually increasing.

Professor Moore. That is the popular opinion.

Mr. Field. Yes; but the impression in the public mind is such that a great many people may rely on it to their prejudice. Do you think there is to be a recurrence of dry years, just as there has been in the last three years a very perceptible increase in rainfall?

Professor Moore. I have not any doubt of it. Many people have written to me and have said that they have been advised to buy land in this region now, and that it is two or three times what it was ten years ago in price, but that it is offered for sale to them on the ground that there has been a permanent change in the climate. They say they have had such-and-such rainfall for the past six years, and six years is a long time, and that therefore the climate has changed. I have answered and said no, it has not changed. It is true there has been a period of years in which there has been more than the average rainfall. But do not be deceived, there will come years when it will be just as short as it has been in excess.

We find, right in the arid regions, that during a long period of observations, thirty, forty, or fifty years, the average of the first ten years is precisely the same as the average of the last. I do not mean to say that there has not been a change in the climate on this continent, for there has been a great change in the climate.

Mr. Field. What is the longest cycle of either dry or wet weather?

Professor Moore. I can not answer that offhand, but my opinion is that the present long period of abundant rainfall over the great cereal plains of this country is the longest we have ever had a record of.

Mr. FIELD. At present?

Professor MOORE. At present; and I as confidently look for as long a period of drought. I think the people ought to take cognizance of that, instead of proceeding on the theory that they are going to have an abundance of rainfall and big crops; they should realize that the time is now coming when we will have to go through a drought and a shortage of crops.

Mr. BROOKS. There is another popular misconception, that while the average rainfall has not increased materially, the distribution has been equalized; for instance, that 13 inches twenty years ago was the result of eight or ten heavy storms, and now it is the result of 50 storms, spread along through fifty weeks. Is there anything in that?

Professor MOORE. Not exactly the way you state it; but there is something in this, that the same amount of rainfall is better conserved, because of better methods of cultivation.

Mr. BROOKS. That goes to the cultural methods?

Professor MOORE. There is one other test. We are breaking up virgin soil and planting trees. While not increasing the rainfall, it will make the same amount more efficient and more profitable, because the soil is broken up and there will not as much run off. It is retarded and kept from running off, and there is not so much evaporation. The same amount of rain that you got before is more perfectly absorbed.

Mr. FIELD. That would not make what has heretofore been an arid country a safe agricultural country?

Professor MOORE. No.

The CHAIRMAN. Professor, how many wet seasons have we had, in your judgment, consecutively?

Professor MOORE. Six seasons, from my recollection.

The CHAIRMAN. In that time, as I understand it, Mr. Brooks thinks that dry farming has been built up?

Mr. BROOKS. In four years the dry farming method has come in.

The CHAIRMAN. Suppose we strike a number of dry seasons—I wonder whether we can carry on that dry farming?

Professor MOORE. Probably not in the places where you have attempted it.

The CHAIRMAN. We are inducing a number of people to move into this dry country, and if a dry cycle follows a wet season they will get in trouble.

Mr. HENRY. Mr. Mead made the point on that last year.

Mr. BROOKS. The whole theory of Mr. Mead's work is to me a warning and demonstration of what the limits of successful dry farming are. Its limits are very closely defined. The Department is working along exactly the line Doctor Moore has now outlined in counteracting this overconfidence.

The CHAIRMAN. It is a land boom.

Mr. BROOKS. Yes.

Professor MOORE. A great many people have bought land, I am very confident, from letters that I have received, in a region which in the majority of years will not be productive.

The CHAIRMAN. Lands that are not commercial propositions?

Professor MOORE. Yes. I have written a number of letters to people who have asked me for advice advising them not to buy any-

thing on the ground that it will be productive unless it was productive ten years ago.

Mr. SCOTT. You stated a while ago that we would not have any rain except for the dust particles in the air.

Professor MOORE. Precisely.

Mr. SCOTT. I presume that implies that the fewer dust particles we have in the air the less rainfall we are likely to have.

Professor MOORE. It may be that it would depend somewhat on the size of the dust particles. That we do not know yet.

Mr. SCOTT. The question I was leading up to is whether, in your judgment, it is possible that the breaking up of this country out in the semiarid West might perhaps create a sufficiently large quantity of dust particles to make any difference in the rainfall.

Professor MOORE. I should think not. I think the dust particles that come from such action would not enter into this question.

Mr. SCOTT. Another thing. In relation to the winds in the Western States, I will say that I have lived all my life in eastern Kansas, and I know that we do not have the winds there that we did twenty-five years ago.

Professor MOORE. You have more trees to restrict the blow. You do not feel it as much near the ground.

Mr. SCOTT. Another fact in regard to that is this: Dr. Frank H. Snow, of the University of Kansas, has been making a daily weather observation for more than forty years. His wind instruments are on top of the State University, which is on the summit of a hill just about 300 feet above the surrounding country.

Professor MOORE. Yes.

Mr. SCOTT. The university building is quite high, so that if there is a wind he gets a record of it.

Professor MOORE. Where is it located?

Mr. SCOTT. At Lawrence, Kans. He reports that there is very much less wind now than there was forty years ago when he began.

Professor MOORE. We have some records for the last thirty years. I would like to compare that. Sometimes an instrument that is left to work for a long time, and which is not properly lubricated, will show a deficiency in the blowing of the wind, when it is an instrumental fault, so I would want to compare that with our instruments. We take down an instrument once every seven days and replace it with another that we know is thoroughly lubricated, to be sure that there is no defect in the apparatus. I am not saying that he is not right, because of the fact that the trees that have been planted in that region will restrict the blowing of the wind; but I am quite certain that there has been no change in the general high velocity for, say, an altitude of 50, 60, or 100 feet. I am going to lecture in Emporia next week, if I get away from the committee on time, and I would like to ascertain about the Lawrence record.

Mr. SCOTT. I wish you would stop at Lawrence and talk with Doctor Snow.

Mr. COLE. Is there any difference in the mean temperature of the United States now and fifteen years ago?

Professor MOORE. I should say not.

Mr. COLE. There is less snow out in Ohio than there was.

Professor MOORE. No; if you go back to Thomas Jefferson, and he was a pretty good authority in his day, you will find among his papers

in the State Department, where he wrote: "It is apparent that the climate of Virginia has changed. The old inhabitants here tell me that they remember when snow lay on the ground four months every year and they rode in sleighs. Now, he says, it is rare that we get enough snow to have a sleigh ride. He said it is apparent the climate of Virginia has changed since 1607 when the settlers came into Jamestown. But it has not changed."

The CHAIRMAN. There might have been some reason. It was a thickly wooded country, was it not?

Professor MOORE. There has been a great deal of clearing in that time, but that would not change it. The change was in the man who was telling the story. We measure things by a different standard as we grow older. Every man when he gets to be 50 years of age will look back and think of one great snowstorm, and he will say: "We had snow 4 feet deep all winter long," because all he remembers as he thinks back is the one snowstorm. He remembers the abnormal, and in his mind brings it down to the present day and compares it with the average. But it is not a fair comparison.

Mr. COCKS. Like the blizzard of 1888.

Professor MOORE. Precisely. When you get old enough you will be telling your boys that that occurred every winter.

The CHAIRMAN. We are very much obliged to you, Professor.

The committee (at 3.50) adjourned until to-morrow, Wednesday, January 9, 1907, at 10.30 o'clock a. m.

COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES,
Washington, D. C., Wednesday, January 9, 1907.

The committee met at 10.30 o'clock a. m., to resume consideration of the agricultural appropriation bill, Hon. James W. Wadsworth in the chair.

The CHAIRMAN. We have Doctor Melvin here this morning. He is Chief of the Bureau of Animal Industry.

STATEMENT OF DR. ALONZO D. MELVIN.

The CHAIRMAN. Doctor, I notice the first slight amendment in your salary roll is a slight increase for yourself. That was the salary that your predecessor had, was it—\$5,000?

Doctor MELVIN. Yes, sir.

The CHAIRMAN. Of course the work of the bureau has been greatly increased by the passage of the meat-inspection bill. The first amendment, on page 8, under your paragraph, "General expenses, Bureau of Animal Industry," will be found in italics: "and for the construction and alteration of buildings thereon as may be necessary from time to time in the discretion of the Secretary of Agriculture," and then comes "to establish, improve, and maintain quarantine stations," and then in italics, "and construct and alter buildings thereon as may be necessary from time to time in the discretion of the Secretary of Agriculture." That seems to be a repetition.

Doctor MELVIN. The first refers to the experiment station and the second to the quarantine stations.

The CHAIRMAN. Oh, yes; the Bethesda Station; I see. Tell us the needs of that in your own way, and the character of the buildings you propose to put up, and the proposed cost.

Doctor MELVIN. The buildings at the experiment station——

The CHAIRMAN. That is in Bethesda, near Washington?

Doctor MELVIN. Yes, sir. The character of the buildings is governed very largely by the nature of the experiment which is being conducted, and it is almost impossible to anticipate at the time estimates are made what kind of buildings will be required for the coming year or during the next fiscal year. These buildings, with the exception of one which is used as a laboratory and the residence on the station, are very much of a temporary nature. They are built of wood, without any elaborate cost, and are, in fact, quite a temporary construction. It would facilitate the work very much, I think, if we could have the privilege of making these changes within our regular appropriation as we may find funds to do that.

Mr. SCOTT. How long has the Department been operating that station at Bethesda?

Doctor MELVIN. I think about six or seven years.

The CHAIRMAN. It was operated before it went to Bethesda, I will say to the gentlemen; it was operated first out by Benning, was it not?

Doctor MELVIN. Yes, sir.

Mr. HENRY. You have been out there something like eight years, have you not?

Doctor MELVIN. Yes; probably.

The CHAIRMAN. Eight or nine years. They outgrew that other place.

Doctor MELVIN. The Benning property was leased and the Bethesda property is in the possession of the Government.

Mr. SCOTT. How much ground is there out there?

Doctor MELVIN. There are about 50 acres.

Mr. HENRY. Have you bought any since the first purchase?

Doctor MELVIN. Yes; a second purchase was made about three or four years ago.

Mr. HENRY. Some 50 acres?

Doctor MELVIN. The superintendent advised that a further purchase be made as early as possible as an economic measure on account of the rapid increase in the value of property in that vicinity.

Mr. HENRY. Lying back, is it?

Doctor MELVIN. Yes, sir.

Mr. HENRY. They talked of that several years ago.

Doctor MELVIN. It is possible for him to raise green fodder during the summer and get several crops. Most of these animals are necessarily confined to small quarters, and if they can be given green fodder it keeps them in much better condition.

The CHAIRMAN. Can not they buy green fodder?

Doctor MELVIN. It costs more, in this way——

The CHAIRMAN. Perhaps in actual cost of the fodder, but when you take the interest on this land into consideration, I doubt whether it would cost more. How much is land worth out there; is it worth \$200 or \$300 an acre?

Doctor MELVIN. Some is worth more than that. I think that land which he has in mind to purchase could be purchased probably for

\$200 or \$300 an acre; but we have to have a large number of laborers there to take care of these various animals; for instance, we would have to have one man to take care of just a few animals, and no others; because it would be dangerous to have a man passing from one group to another, as he might transmit disease from one group to another. While these men are not employed in taking care of animals, they can be assigned to farming, plowing, and harvesting this green fodder, and it has worked very satisfactorily in that way.

MR. SCOTT. What is the nature of the experiments you are conducting there?

DOCTOR MELVIN. They are, of course, quite varied. We have a number of experiments—three or four different sets of experiments in reference to tuberculosis. We have others in reference to scab in sheep, and another as to wireworms in sheep. We have some milch goats that are affected with a disease which we are investigating.

MR. SCOTT. In a general way, you are studying diseases of animals?

DOCTOR MELVIN. That is what it is for, yes; it is for that purpose.

MR. SCOTT. Can you give the committee an idea of the buildings you are likely to need; is it something more than stock sheds?

DOCTOR MELVIN. Well, perhaps a little better than that; a little more permanent than what you would call a stock shed; but still not an elaborate building.

THE CHAIRMAN. A wooden building?

DOCTOR MELVIN. I can say at this time that we have not any buildings in mind, but we have from past experience learned that if this provision were made it would be very wise because we have felt the necessity of having such provision in times past.

THE CHAIRMAN. The idea, as I understand it, is to put up rather cheap buildings that in course of time may be burned; that you will follow somewhat the hospital theory of burning the buildings when they get old and perhaps become impregnated with germs.

DOCTOR MELVIN. Yes.

THE CHAIRMAN. They are not expensive brick buildings that you contemplate?

DOCTOR MELVIN. No, sir; we do not anticipate that.

THE CHAIRMAN. Now please pass along and tell us about that quarantine station in Baltimore, I think it is.

DOCTOR MELVIN. We have a quarantine station for imported animals at Halethorp, Md., which is a small station on the railroad near Baltimore and between Baltimore and Washington. The buildings have been erected for quite a long time; I think they were constructed by the Treasury Department before the Department of Agriculture had control. These buildings are in very poor condition, and the fences are in poor repair; and it would cost to remodel them practically what new buildings would cost. There is a prospect that a race course will be built adjoining this piece of land, which would make it undesirable as a quarantine station.

THE CHAIRMAN. This is rented land?

DOCTOR MELVIN. Yes; rented land. We had in mind to obtain permission from the War Department to use part of Fort McHenry, which it has been decided to abandon as a fort and use as a supply warehouse. If this permission could be obtained from the War Department the object would be to erect on that land some wooden

buildings, not necessarily very expensive, and there establish a quarantine station. This fort, as you know, is on the water front. Animals could be unloaded directly from the steamers to the fort by means of a lighter. At present they have to be unloaded from the docks in Baltimore and then transferred 9 or 10 miles to Halethorp, which, of course, is very undesirable from a quarantine standpoint. I am unable to state whether we will be able to obtain permission from the War Department or not, but we hope to get it. The city of Baltimore, I understand, is making quite an effort to obtain the use of this fort as a park, and whether they will prevent us getting this permission or not I do not know.

Mr. HENRY. The Government bought and owns land in New Jersey?

Doctor MELVIN. Yes; at Athenia, N. J., we own the land and erected the buildings thereon.

Mr. HENRY. That is accessible only by railroad, is it?

Doctor MELVIN. Only by railroad; yes.

Mr. HENRY. Doctor Salmon endeavored to secure land that would be accessible by water?

Doctor MELVIN. Yes; but we have none on the water. Our place at Boston is about 30 miles from the docks.

The CHAIRMAN. You have a provision here at the end of your paragraph on page 9 which reads:

Provided, That the Secretary of Agriculture is authorized to expend not to exceed \$20,000 of the amount hereby appropriated in the purchase of additional land for the experiment station of the Bureau of Animal Industry in Bethesda, Maryland.

Now, what price do you propose to pay for this land? Have you made any inquiries as to what it will cost you?

Doctor MELVIN. Yes. The superintendent of the experiment station has obtained figures regarding the cost. I neglected to bring those figures with me this morning, however.

The CHAIRMAN. Have you got it, approximately, in your mind?

Doctor MELVIN. About from \$200 an acre to \$300 an acre, I think.

Mr. SCOTT. You figure, then, on buying about 100 acres of land?

Doctor MELVIN. Not entirely. There may be a strip of land lying in front of the station, a small strip, which will cost more than that. There is a piece of land lying between our station and the main road which, I understand, is to be subdivided and made into building lots, with the probability of an alley abutting against the residence of the station, which would make it very undesirable. With the purchase of a small strip in there it would make the present appearance of the station very much better.

The CHAIRMAN. I understood you to say that your reason, or at least one reason, for wishing to buy the additional land was that it would enable you to raise some more green fodder, which could be raised to an advantage?

Doctor MELVIN. Yes.

The CHAIRMAN. Is there any other except this economic reason; do you need additional land for the proper conduct of your experiments?

Doctor MELVIN. Well, we have felt that at times the animals would be better if they could have more room to exercise in.

Mr. HENRY. You have wanted to buy that front strip of land for

some years, but they have been asking a high price for it, have they not?

Doctor MELVIN. Yes. Well, I think that that proposition included the whole tract. This that we now have in mind would be only a small tract of a few yards in width lying directly in front of the station. This expenditure would of course be made only in the event of our being able to get it out of the general appropriation. It is not in addition to the amount asked for, but only in the event of some unexpended balance that might be used for this purpose.

Mr. HENRY. In other words, by practicing economy in other directions you might save this money to buy this land with?

Doctor MELVIN. Yes, sir.

The CHAIRMAN. It does not look like a very good business proposition to pay \$200 or \$300 an acre for land to raise fodder on.

Doctor MELVIN. Well, I am quoting the statement of the superintendent in saying that it had paid in a financial way. Perhaps that does not take into account the interest on the money, but the value of the fodder has been such that he thinks it has paid. We have been able to raise fodder at a great deal less than it would have cost the Department for the same amount.

Mr. SCOTT. With the land you have there now, are you able to keep the men whom it is necessary to have to handle the stock employed when they are not engaged with the stock?

Doctor MELVIN. Probably not all the time. We try to keep them employed as much as we can, because we find they are more contented and give better service when they are employed than when they are not employed all the time.

The CHAIRMAN. How many animals have you got there, approximately, now? How many beef animals and cattle will it average throughout the year?

Doctor MELVIN. I could not give you a very close estimate of it.

The CHAIRMAN. Well, about 20?

Doctor MELVIN. Yes; we have more than that. We have probably 40 or 50 yearlings. We are carrying out an experiment with them for the prevention of tuberculosis. And then we probably have 8 or 10 grown cattle; besides a number of donkeys and work animals.

The CHAIRMAN. You practically do not graze at all?

Doctor MELVIN. No; they do not graze at all.

Mr. COCKS. How many acres are there there now?

Doctor MELVIN. About 50 acres there now.

Mr. COCKS. How far is it from the city?

Doctor MELVIN. It is about 6 miles from Georgetown.

Mr. HENRY. Could not this experiment farm better have been located over on the other side of the Potomac?

The CHAIRMAN. Over by Arlington, for instance?

Doctor MELVIN. I think this is an ideal location.

Mr. HENRY. I know it is up on high ground.

Doctor MELVIN. And I think it is better adapted for the purpose.

Mr. HENRY. And it was secured by the Government prior to the experiment farm at Arlington, was it not?

Doctor MELVIN. Yes. As an investment the Government made money. That land is probably worth \$100 to \$200 an acre more than it was when it was purchased.

Mr. SCOTT. Would you think a proposition to sell that farm and transfer the experiment to Arlington would be a good one?

Doctor MELVIN. I would not consider it wise at all, because we have already expended a good deal of money—

The CHAIRMAN. Could they not raise for you the feed in their experiment work over there? Would not the union of the two alongside of each other be very useful to both sides? In a way, you could experiment with some feeding problems, maybe.

Doctor MELVIN. I think the distance would be almost too great—

The CHAIRMAN. I mean to sell Bethesda and move your animals over there, and then could not your experiment work be utilized, your fodder experiments, your plant experiments, and all that?

Doctor MELVIN. No; I don't believe the pathologist of the Bureau would take kindly to a scheme of that sort. There would be too much danger of one object being lost sight of. Of course—

The CHAIRMAN. You would have a separate establishment over there, and you could utilize any surplus fodder that they raised.

Doctor MELVIN. But they would insist on its being fed under certain conditions.

The CHAIRMAN. Which might not be agreeable to you?

Doctor MELVIN. Yes, sir.

Mr. SCOTT. I don't know why that should be. If one branch of the service raises fodder it does not make any difference to it how that fodder is disposed of, does it?

Doctor MELVIN. It would if they were feeding to determine the economic value of the fodder. They would want it fed under certain conditions, certain amounts, and only certain feeds, whereas by using only certain feeds it might interfere with the investigation that the pathologist had in view. I don't think the benefit would be sufficient to warrant the change.

Mr. SCOTT. Cutting out the idea that any joint work might be carried on, I understand that as it is now you are not conducting any experiments in feeding over at the Arlington Farm?

Doctor MELVIN. I don't know.

Mr. SCOTT. They are doing no experiments of that kind at all over there, I understand. Cutting that idea out, I would like to ask you again, what would be the principal objection, from your point of view, to removing these Bethesda experiments to Arlington?

Doctor MELVIN. Well, to be frank, I have never been on the Arlington farm, and I don't know the conditions there; but I do know that Bethesda is almost an ideal location for an experiment station such as we have. The ground is rolling; it is now well fenced, and the streets are well paved. We have had hundreds of cords of broken stone put in the roads and we have utilized the men in breaking stone and making roads, and the place is well divided into lots, and there are good fences, and the buildings, such as we have, are adapted to the purpose, and it would seem to me to be a waste of material to abandon that and rebuild—go to some other station.

Mr. SCOTT. As far as that is concerned, you suggested a little while ago that the land is probably worth a good deal more now than when the Government purchased it, and could be sold for more than enough profit to reconstruct all the sheds and fences, and things of that kind that would be needed.

Doctor MELVIN. Pardon me, I did not go quite as far as that. I said the land had already enhanced very much in value, but whether the additional increase would be sufficient to defray those expenses I don't know.

The CHAIRMAN. If you are getting paved streets, and all that kind of improvements about you, you will have to move out in a few years, probably, on account of the growth of the city, as we had to do at Bennings. And a station of that kind is never very acceptable to residents, if they are close.

Doctor MELVIN. These streets are on our station, streets we have made ourselves.

The CHAIRMAN. Oh, you mean roads?

Doctor MELVIN. Yes.

Mr. SCOTT. They are not essential to the conduct of your experiment, I presume?

Doctor MELVIN. Oh, yes; it is very necessary to have proper roads. We have considerable hauling. We have to haul feed to the various lots where the animals are confined, and unless we have macadamized roads it would be very difficult, in fact almost inaccessible, in wet seasons of the years.

The CHAIRMAN. I think you have the stone right on the ground.

Doctor MELVIN. Yes; we have all the stone right there.

The CHAIRMAN. I remember a little quarry there. It is just a cheap road—a narrow road—that you are constructing at the station?

Doctor MELVIN. Yes; they are all narrow roads.

The CHAIRMAN. A few feet wide—probably not half the width of this room.

Doctor MELVIN. Not much wider than a wagon track.

The CHAIRMAN. Are there any other questions along the line of this quarantine station? If not, we will proceed to the meat-inspection act.

Mr. BROOKS. May I ask a question or two on the next item in the bill—experiments in animal breeding?

The CHAIRMAN. Certainly.

Mr. BROOKS. Mr. Melvin, we have appropriated for several years \$25,000 a year for experiments in animal breeding and feeding. I wish you would tell the committee how that fund is used—how it is distributed.

Doctor MELVIN. During the past year, ending June 30, for animal nutrition there was expended \$3,237; beef production, \$1,592.

Mr. SCOTT. I don't think that answers the question. He was asking about this animal breeding.

Doctor MELVIN. This is all included in that fund.

Mr. BROOKS. The fund of \$25,000?

Doctor MELVIN. Yes, sir.

Mr. BROOKS. What was that last item you read?

Doctor MELVIN. Beef production, \$1,592.

Mr. BROOKS. What is that?

Doctor MELVIN. That is in this animal feeding and breeding fund of \$25,000.

Mr. BROOKS. Where was that carried on?

Doctor MELVIN. That was carried on at the experiment station in Alabama.

Mr. BROOKS. The first was \$3,500?

Doctor MELVIN. Three thousand two hundred and thirty-seven dollars.

Mr. BROOKS. For what—was that for nutrition?

Doctor MELVIN. That was for nutrition.

Mr. BROOKS. Is that for these calorimetric experiments in Pennsylvania?

Doctor MELVIN. Yes, sir.

Mr. LAFEAN. What part of Pennsylvania?

Doctor MELVIN. The experiments connected with the State experiment station.

Mr. BROOKS. Those experiments are very interesting—those calorimetric tests—as I understand them. Can you give us something as to the details of them?

Doctor MELVIN. In salaries out of that amount there were \$3,038.17.

The CHAIRMAN. Out of the \$25,000?

Doctor MELVIN. Out of the \$3,237.07 there were expended \$3,038.17 for salaries.

Mr. BROOKS. That last amount of three thousand and odd dollars comes out of this \$25,000?

Doctor MELVIN. Yes.

Mr. BROOKS. And that is expended at the Pennsylvania State Experiment Station?

Doctor MELVIN. Yes, sir.

Mr. BROOKS. Now, what are you doing there?

Doctor MELVIN. They are studying the value of different foods from a highly scientific standpoint. The investigations are conducted by Professor Armsby, who is considered an expert in that line. They have a calorimeter there that registers all the waste products, and even the air that is consumed and the carbonic-acid gas that is emitted, the feces, the urine, and everything. It has been carried on for a number of years, and it is expected that it will be a very highly scientific piece of work and will be a very useful piece of work when it is completed. Various foods have been taken up at different times. To go into it more deeply than that is almost beyond me at this time; it is something I could not go into detail about.

Mr. BROOKS. That is the main place in the United States where you are conducting that work?

Doctor MELVIN. Yes—

Mr. BROOKS. Is there any other place where that same class of work is being done?

Doctor MELVIN. Not in the same manner. Of course this beef production in the South is somewhat on the same line, but in a very much simpler form.

Mr. BROOKS. That accounts for about \$5,500 of the fund, as I have figured it roughly, which are the Alabama and the Pennsylvania stations.

Doctor MELVIN. No; one is \$3,237.07, and the beef production is \$1,592.69.

Mr. BROOKS. Which is in Alabama?

Doctor MELVIN. Yes.

Mr. BROOKS. How is that spent?

Doctor MELVIN. There is \$1,228.34 in salaries and there were \$364.35 in traveling expenses. The traveling expenses were for the

purpose of visiting different points in the State where herds that were on feed were under observation, to note the increases, etc., in the stock.

The CHAIRMAN. "Under observation." What kind of observation? What was the observation for? What was it to find out?

Doctor MELVIN. To obtain the facts with reference to the kind of pasture and forage used, and the gain, if any, in the animals; to determine what methods of feeding were the most profitable.

The CHAIRMAN. In that section?

Doctor MELVIN. In that section.

Mr. LEVER. Do you do this in cooperation with individual farmers and the experiment stations?

Doctor MELVIN. Our part is direct with the experiment stations, and I believe that they have arrangements with different farmers who supply the stock.

The CHAIRMAN. Who is the man who draws this salary? How much salary out of the \$1,500—\$1,200 and something—is it? Is he an expert cattleman—is he an expert feeder, I mean?

Doctor MELVIN. Yes, sir.

The CHAIRMAN. Never mind his name, but has he made a report on the work?

Doctor MELVIN. Oh, yes; they make reports. Professor Dugger is the man who is paid there, and then there are one or two assistants who are also paid.

The CHAIRMAN. Are they in the employ of the State also?

Doctor MELVIN. Yes. I should say that only part of Professor Dugger's salary is paid.

The CHAIRMAN. This salary is in addition to what they receive from the State, then?

Doctor MELVIN. Yes. I don't know whether the State reduces their part in proportion to what we pay or not; I don't know whether ours is additional to what his salary would be ordinarily or not; I can not answer that.

The CHAIRMAN. Your judgment would be that they do not?

Doctor MELVIN. No; I don't know. I would not say about that. I believe that we pay \$1,000 to Professor Carlyle, and I understand that the State reduced his salary that much.

The CHAIRMAN. Have you got that man's report on that feeding?

Doctor MELVIN. No; I have not.

The CHAIRMAN. Who has got it; who has the report he made to the Department?

Doctor MELVIN. I think it is in the office of the animal husbandman of our Bureau. I will inquire for it.

The CHAIRMAN. I would like to see what report he has made on feeding down there.

Mr. FIELD. Are these observations on experiment work going on in the several southern States, or are they confined to the State of Alabama?

Doctor MELVIN. I think they have one herd of cattle in Tennessee that they have under observation; but I think most of the work is in Alabama.

Mr. FIELD. I know in Texas that work is carried on by the State.

Doctor MELVIN. Yes; we have had requests for cooperation from

the State of Texas, but have been unable to take it up on account of having these other plans formed. The horse breeding—

Mr. BROOKS. Where else is this work going on? I would like to have you go on in your own way.

The CHAIRMAN. Take up the Vermont case; the Vermont horse-breeding establishment next.

Doctor MELVIN. Total expenditures in horse breeding, \$12,087.94. Of that, \$2,212.22 was for salaries; \$730.31 for travel, and \$9,145.41 for miscellaneous expenses. That includes, principally, the cost of several horses purchased in the past year.

Mr. BROOKS. Where were those horses purchased—for what station were those horses purchased?

Doctor MELVIN. For Vermont and for Colorado.

Mr. BROOKS. How much for Vermont and how much for Colorado?

Doctor MELVIN. I haven't the cost of the particular horses; there was about \$500 for Colorado and the balance for Vermont.

Mr. HENRY. Have your purchases in Vermont been confined mainly to the Morgan strain?

Doctor MELVIN. Yes.

Mr. BROOKS. These salaries that you paid out of the \$12,000—are those the salaries that you pay here, or are those the salaries you pay in Vermont and Colorado?

Doctor MELVIN. They are all paid outside of the city; they are paid in Vermont and Colorado.

Mr. BROOKS. Now, that accounts for \$16,000 or \$17,000 of this fund.

Doctor MELVIN. Shall I go on?

Mr. BROOKS. Yes; if you will.

Doctor MELVIN. Poultry breeding, \$1,000; \$600 for salaries. \$400 for miscellaneous expenses.

Mr. BROOKS. That is in Maine, is it not?

Doctor MELVIN. Yes, sir.

Mr. BROOKS. Milch goats, breeding, \$4,275.74. Where are you doing that?

Doctor MELVIN. We had outlined to conduct that experiment in Connecticut and Maryland, but a disease was observed among the goats which made it impossible to continue the experiment, and they were removed to our experiment station at Bethesda and they are under observation.

Mr. FIELD. Are they the same goats that were in quarantine at the last meeting?

Doctor MELVIN. Yes, sir.

The CHAIRMAN. What is the disease?

Doctor MELVIN. It is a disease that has been found to be capable of transmission to people through the milk. It produces a disease that has been called Mediterranean fever.

Mr. COCKS. Also known as Malta fever, is it not?

Doctor MELVIN. Yes, sir.

The CHAIRMAN. Is that disease common in Malta from drinking the milk of this goat?

Doctor MELVIN. Yes, sir. The cause of the disease was unknown up to about two years ago, about the time of the purchase of these goats.

The CHAIRMAN. How does it show itself in the goat?

Doctor MELVIN. The goats oftentimes will live very long without showing any evidence of the disease at all.

The CHAIRMAN. These goats went through our regular quarantine of three months?

Doctor MELVIN. Yes.

The CHAIRMAN. Without showing any symptoms of the disease?

Doctor MELVIN. No; we mistrusted the disease soon after their arrival, through the death of one or two of them, and then investigated and found this disease in their blood and made tests.

The CHAIRMAN. Is it a contagious disease or is it transmitted by the milk only?

Doctor MELVIN. It is transmitted by the milk and through the urine and feces.

Mr. BROOKS. Is it a disease that exists among the goats of this country besides these goats imported—that is to say, among the New Mexico goats; is it found among them?

Doctor MELVIN. It is not known outside of these goats.

Mr. SCOTT. Do you regard the goat of sufficient value as a milk animal to warrant any considerable expenditure in the way of experimenting?

Doctor MELVIN. Yes, sir; I think there is a great deal that might be accomplished in that direction, not alone by importing, but by breeding up our native goats.

Mr. DAVIS. Which part of the country has the greatest number of goats?

Doctor MELVIN. I think the Southwest.

Mr. DAVIS. Texas and New Mexico?

Doctor MELVIN. Yes.

Mr. BROOKS. And there they are quite a milk-producing animal?

Doctor MELVIN. Yes, sir; they use them quite largely for both milk and meat.

Mr. DAVIS. Do they not have them in quite large herds—herds of several hundred, or even several thousand?

Doctor MELVIN. Yes; nearly all Mexicans and Indians have more or less of them among their sheep herds.

The CHAIRMAN. The Italians in my village are milking a lot of goats; they seem to be an ordinary kind of goat.

Doctor MELVIN. A great deal can be done in that line, I have no doubt.

The CHAIRMAN. What is the difference between these milch goats brought from Malta and the ordinary goats around the suburbs of cities?

Mr. COCKS. These were supposed to be the most desirable kind of milch goats known in the world.

Doctor MELVIN. Yes; the greatest milkers known.

The CHAIRMAN. There is no difference in kind, no difference in appearance, is there? They resemble the ordinary goat?

Doctor MELVIN. They are quite different in appearance; even the two breeds which they have largely in Switzerland are different.

The CHAIRMAN. Larger?

Doctor MELVIN. Larger, and they are different in shape and color. However, very few of these goats are constant in color. In the case of these Malta goats the bag is very small at the base, almost pear shaped, with the tip nearly touching the ground. The ordinary goat,

such as we have, has a bag which is quite closely attached to the abdomen.

Mr. COCKS. That would be a disadvantage, would it not, that low pendant?

Doctor MELVIN. It would seem so to me.

The CHAIRMAN. Then so far your experiment has not been a success, owing to this disease?

Doctor MELVIN. That is correct.

Mr. BROOKS. How much milk does this Malta goat give?

Doctor MELVIN. I don't know.

Mr. COCKS. About 2 quarts, I think.

Doctor MELVIN. Some have made the claim that certain goats would give as high as 6 quarts a day, but that would certainly be the exception.

Mr. COCKS. Two quarts in a milking is what they claim for these goats.

The CHAIRMAN. That is the average cow, then?

Mr. COCKS. That was the high level.

Mr. LEVER. Do you think there is a possibility of people taking to the habit of drinking goat milk in preference to cow's milk.

Doctor MELVIN. Yes, sir; I think if we could have gone ahead with this goat experiment it would have become very popular. The announcement that the Department was getting these goats caused a great many inquiries to come to the Department from physicians and invalids and from people who wanted to get the milk for babies.

Mr. LEVER. Is it too strong for babies?

Doctor MELVIN. No, sir; it is very wholesome.

Mr. LEVER. But is it not too rich? I know the milk of the Jersey cow is sometimes too rich for delicate stomachs.

Doctor MELVIN. This is a better balanced milk, it has a larger percentage of sugar and less casein, I think, and is more like the mother's milk than cow's milk.

Mr. BROOKS. Are you discouraged with the result of your experiment or do you propose to keep on with it?

Doctor MELVIN. We intend to see it out—see what we can do.

The CHAIRMAN. In other words, you have to abandon importing goats and you have to breed up here a family of milch goats?

Doctor MELVIN. Yes; except those we get from Switzerland. This disease does not obtain in Switzerland, or at least we do not know that it does.

Mr. BROOKS. And you think it is advisable and an advantageous thing commercially to breed up our American goat?

Doctor MELVIN. Yes, sir.

Mr. BROOKS. That accounts for between \$22,000 and \$23,000 of this fund, as I figure it?

Doctor MELVIN. In turkey breeding we expended \$1,813, of which \$1,061.31 was for salaries and \$351.69 miscellaneous. That was in Rhode Island. The expert was employed more for the purpose of studying the disease that attacked turkeys.

The CHAIRMAN. To whom was that paid?

Doctor MELVIN. Partly the salary of an expert, and one helper.

Zebra-hybrid breeding, \$226.31. For miscellaneous expenses that were connected—

The CHAIRMAN. Before you leave the turkey-breeding item, what results are you seeking to produce, or have you produced any?

Doctor MELVIN. The experiment is not completed yet. The idea of the experiment being to determine, if possible, the manner in which the disease is transmitted from one lot of turkeys to another, whether it is through the eggs, or whether it is carried by birds, or in what way the disease spreads, in order that raisers of turkeys can take proper measures to prevent it. The work has not advanced far enough to give definite results.

The CHAIRMAN. Now, before the United States Government gave that additional \$1,000, or whatever it was, as salary, what was the State of Rhode Island doing along that line? They must have been doing something, because I judge you picked that man out as a turkey expert.

Doctor MELVIN. He was employed there in their work previous to the time of the turkey investigation. I don't know what work he was engaged in previous to this work, and I don't think they did anything in this line until we took it up together. It was a very serious calamity to Rhode Island. Their turkeys were becoming almost exterminated.

The CHAIRMAN. That was a great industry in Rhode Island, and yet the State, it seems, refused to do anything to protect that industry until we took it up.

Doctor MELVIN. I don't know that they refused to do anything. They had not taken it up in quite so close and scientific a way until we cooperated with them. I presume they did make some investigations.

Mr. BROOKS. Are not a number of these items more or less included in the work of the department of animal pathology?

Doctor MELVIN. Well, that would be a case that probably could go into either class of work—belong to either one.

Mr. BROOKS. In other words, is it not just a little—not to be invidious—but a perversion of the purpose of this appropriation?

Doctor MELVIN. No; I think not. In connection with this work several purchases were made of wild turkeys, with the idea of getting a different strain that might be resistant to the disease.

Mr. BROOKS. Yes; that is true.

Mr. HENRY. I might say right here that you have in Rhode Island, in connection with the experiment station, a very valuable man, and he has brought out some facts in connection with turkey breeding and in connection with the diseases that are very valuable.

The CHAIRMAN. The Doctor just said that they had no results as yet.

Doctor MELVIN. Not sufficient to publish.

Mr. HENRY. In a conversation he told me what he had done.

Mr. BROOKS. Then there is only about \$1,500 left of the \$25,000? Where does that go? You spoke of the hybrid zebra. What do you expect to accomplish? What do you cross him with—a horse or a mule or what?

Doctor MELVIN. We have not succeeded yet in getting any cross at all.

The CHAIRMAN. How much did you spend for that?

Doctor MELVIN. \$226.31.

The CHAIRMAN. And what was that expended in—in trying to make a cross?

Doctor MELVIN. In importing the zebras.

The CHAIRMAN. As a matter of fact those zebras were given to the President?

Doctor MELVIN. This zebra, I think, that we have now, was given to the President. There was one given to the President; there were two given to the Department, a male and a female. The female died coming over and the male ran against a wire fence and broke his neck. He was then in charge of the Zoological Park. But this is a male that I think was presented to the President.

The CHAIRMAN. Are you trying to cross the male zebra with the mare?

Doctor MELVIN. Yes; that was the intention.

The CHAIRMAN. What do you hope to gain by that?

Doctor MELVIN. Well, it is an experiment to determine whether we can obtain an animal that would be of more value than the ordinary mule.

Mr. BROOKS. And was not a part of it, Doctor, to try to get some kind of a hybrid which could be domesticated and be pretty near self-sustaining on those arid regions in the southwestern part of the country—

The CHAIRMAN. To exist on cactus and rawhides, cactus internally and rawhides externally?

Mr. SCOTT. Hybrids of this variety are known, are they not?

Doctor MELVIN. Yes; but they are a small species. This is a large zebra; very large. There were some very beautiful small hybrids with a circus that I saw last year.

The CHAIRMAN. Yes; but they were not much bigger than the Mexican donkey.

Doctor MELVIN. Very small, trim little animals.

Mr. SCOTT. And they were the result of a cross with a mare and a male zebra, I suppose?

Doctor MELVIN. Yes, sir.

Mr. SCOTT. Do you know whether the cross has been made in the other direction?

Doctor MELVIN. No; I think not; not to my knowledge.

Mr. BROOKS. Mr. Burleson had some interesting facts in regard to what was called a "zebrula," showing that this animal would be a good beast of burden and would take the place more or less of the Mexican donkey or burro; his facts seem to indicate that the zebrula would be a stronger animal and at the same time could get a living out of that arid region.

The CHAIRMAN. Mr. Gibson gives me this, taken from a book which I have at home, called "Military Service." This is stated from an article that appeared in it about two years ago.

France and England produced the zebrula, and it is expected to prove valuable in India in the British Army for mountain artillery.

I suppose our mule would be just as good and probably better. I believe the American mule in the war in South Africa had no equal.

Mr. BROOKS. Does that make up the \$25,000?

Doctor MELVIN. No, sir; there is another item of \$735.05 for miscellaneous investigation. That included \$201.33 for salary, \$70.15 for miscellaneous, and \$40.57 for traveling.

The CHAIRMAN. Tell us how that was expended; what work did the man accomplish?

Doctor MELVIN. It included quite a large number of trips. They were included in that item for traveling. He visited various stations where we had this work under way and investigating different live-stock shows, reporting on the quality of stock at the shows.

The CHAIRMAN. Were Mr. Carlyle's expenses paid to a live-stock show in Chicago, for instance?

Doctor MELVIN. No; not out of this.

Mr. BROOKS. It develops, then, that the major item here is the breeding of horses. That is carried on at only two places thus far?

Doctor MELVIN. Yes, sir.

Mr. BROOKS. In Vermont and in Colorado?

Doctor MELVIN. Yes.

Mr. BROOKS. The Vermont station is only just starting; they have a part of their stud together?

Doctor MELVIN. Yes, sir.

Mr. BROOKS. Mr. Scott has suggested that you tell us what you have done at the Colorado station, if you know.

Doctor MELVIN. Well, as you know, they have purchased a stallion and a number of mares, and as the result of the breeding they have this year fourteen colts.

Mr. BROOKS. The great question that has come up in the committee hitherto has been as to whether or not this horse was prepotent, as to what the colts were with reference to perpetuating his strain. Do you know anything about those fourteen colts that are the result of Carmon's work?

Doctor MELVIN. Yes; I saw them in November last, and they are very fine, high class colts, and all of them are strongly marked after the sire in every instance.

Mr. BROOKS. It is a rather remarkable prepotency, is it not?

Doctor MELVIN. Very much above the average; yes, sir.

Mr. BROOKS. How many mares have they there?

Doctor MELVIN. Nineteen, I believe.

Mr. BROOKS. And how many have they bought this year?

Doctor MELVIN. Two.

Mr. BROOKS. In your judgment, what is the chief need of that experiment? Take it during the term that this appropriation will be available—that is, from July 1, 1907, to July 1, 1908.

Doctor MELVIN. The experts that are engaged in this work, Professor Carlyle and Mr. Rommel, the animal husbandman of the Bureau, think, and my own opinion is, that there is not a large enough number of mares to make selections from in continuing the experiment. It is also evident that we should either own or have the services of another sire to mate with some of the mares which we now have. Of course that would be absolutely necessary—

The CHAIRMAN. You mean the second generation of mares?

Doctor MELVIN. No; with some of these older mares. By the selection of another sire having some other points different from "Carmon," the character of the colts could be improved. For instance, there are some mares that would undoubtedly bear a better colt by another sire.

The CHAIRMAN. Right there; do you think you concentrate your blood enough by having too many mares and different kinds of

mares? Don't you believe you had better start on a small scale and get your blood concentrated by some little inbreeding, so you can get sires and mares that will be prepotent? If your base is big and scattering, and you are bringing in all sorts of blood, you are going to have the difficulty that the French and German coach people are suffering from. Their stallions and mares are not prepotent because they are a mixture of everything and all things, and you know that those stallions in this country have proved utter failures as getters, as a rule. What have you to say to that proposition?

Doctor MELVIN. Well, the idea, of course, was to fix a definite type of an animal, and then, after that type had been established, to breed exclusively from that type.

The CHAIRMAN. You can establish a type, but you have to get an animal that is prepotent in its type to reproduce itself, and can you do that without a strong concentration of blood on the base?

Doctor MELVIN. The stallion we have has shown himself, by his colts, to be very prepotent, but nearly all horses have some little weakness, and where the mare may have some similar weakness it is apt to be increased in the offspring; and by the use of another horse, which could counteract that weakness of the mare, we would get the better offspring.

The CHAIRMAN. You never ought to have bought mares with that weakness; they were not all of the type you wanted; there were seven or eight mares that were exactly the type, and a first-rate carriage type, and the stallion is a splendid type.

Mr. BROOKS. Here is a letter from Mr. Carlyle, which I would like to read, in part:

Mr. Brooks read as follows:

* * * At present we have 14 very fine colts, and there have been added this year two mares to the experiment. We are greatly in need of an additional stallion that will mate well with some of the mares—better than will "Carnon." He is an excellent mate for some of the mares, but naturally he has some weaknesses, and some of the mares have defects in the same line that he has. Consequently the colts tend to have these in an exaggerated degree. No breeder of live stock of any consequence in America has ever accomplished much with a single sire. He mates the different individuals in his herd or stud with the female selected to correct weaknesses in the male. When you have to depend upon one sire alone with all classes of mares, there is only a small proportion of success. We have two or three mares, perhaps four, in the stud that are not going to prove satisfactory and should be discarded unless they prove better this season than they have in the past. Of the 14 colts we have with the fillies and the stallions, I think two of the latter will prove good individuals to preserve entire for breeding purposes and perhaps five or six of the fillies will be worth keeping. The others should be discarded as high-class driving horses. We are planning to purchase some additional land for corrals and paddocks, and also planning to put some shelter in the way of additional sheds and stabling for the young stock. We will need more fencing on the pasturage land so that we can divide the young stock from the brood mares and their foals. This will require funds, and I sincerely hope that both Congress and the State legislature may see the thing in the proper light to make reasonable appropriations for the carrying on of the work.

Again thanking you, etc.

And that is signed by Mr. W. L. Carlyle.

Mr. BROOKS (continuing). I understand that you, in general, concur in the idea that there ought to be one more stallion?

Doctor MELVIN. Yes.

Mr. BROOKS. I want the committee to understand also that any purchases made for either Colorado or Vermont must be provided

for here, to take care of the breeding season of 1908, because the fund for next year's breeding will not be available after July 1 of next year. Any purchase of a stallion for the season of 1908 must come out of whatever we do at this time.

MR. COCKS. Is it not proper to keep the desirable ones and discard the undesirable mares—get rid of these mares that have weaknesses—is not that better than to undertake to balance that, if we are after some particular type? That would be my idea.

THE CHAIRMAN. I think it is foolish to take a defective mare and try to breed her colts up to perfection.

MR. BROOKS. These mares were purchased pretty cheap.

DOCTOR MELVIN. A lot of these mares that are complained of at this time are really exceptionally good mares. They have but a slight weakness. For instance, the back is a little lower than it should be. Otherwise they are handsome mares, well bred, and well gaited.

THE CHAIRMAN. But they are not the type. We started this experiment, as I understand it, to establish a breed of American carriage horses. Some of those mares are no more carriage mares than a thoroughbred Kentucky is a carriage mare.

DOCTOR MELVIN. Two or three of those have handsome colts.

THE CHAIRMAN. But are they the right type?

DOCTOR MELVIN. Yes, sir.

THE CHAIRMAN. And if they are it only shows the prepotency of the stallion.

MR. BROOKS. You remember that there was one horse there that you objected to—a horse that had a Roman nose?

THE CHAIRMAN. Yes.

MR. BROOKS. And that brought one of the finest colts in the bunch.

THE CHAIRMAN. The veal stage is a pretty stage, the veal colt or the veal calf may be very handsome, but later it may follow the sire or the dam.

MR. BROOKS. There are two that Mr. Carlyle objects to.

THE CHAIRMAN. I want this experiment to succeed, and I don't want us to make the mistake I think the French and German Governments have made. This is a slow process and we ought to go very slowly on it. They tried to go too fast. It is the work of fifty years.

MR. BROOKS. We do things quickly out there. We are going to try to accelerate things.

MR. COCKS. Take the mare he speaks of having this nice colt. We are not raising that colt to sell, but to establish a dam or a sire that will produce his like. Now, that Roman nose, that homely mare, will surely come out again the second or third generation.

MR. BROOKS. That had one of the finest pedigrees in the whole bunch; that mare was bred away back to the aristocracy of the horse.

MR. COCKS. The business of breeding has been cut out. The idea used to be that you could sell a Jersey cow on account of its pedigree and it is now what it will do to-day. The breeding for a Morgan coach horse does not cut much figure. The great success of the Mambrino King stock farm, one of the most successful horse-breeding farms, perhaps the most successful in the United States, was owing to the fact that they picked out a type and they said one of

the essentials shall be that he shall be a good-looking horse, and I think you have to keep that in mind all the time in this case.

Mr. BROOKS. Have you the figures as to what the Government gave the Colorado Experiment Station last year? If you have not that, I think I can give you that; I have it here. According to Doctor Carlyle, the National Government gave us last year for the support of the experiment station outside of the purchasing of horses—that is, the year 1905—\$3,500.

This year they have increased that amount to \$3,700, and this is the amount which they contributed from the \$25,000 appropriated. That is to say for maintenance there went to the Colorado Experiment Station the first year \$3,500, the second year \$3,700, and this year they have only purchased two more mares at an expense of \$500. So the total amount that the Colorado Station has gotten all told for the year 1906 is \$4,200. Now, Doctor Melvin, do you know anything about what the other States have done in the way of cooperation? That is to say, Pennsylvania, Alabama, Tennessee, Vermont, or Connecticut?

Doctor MELVIN. Well, they have cooperated in the way of equipment services, and buildings, and so on.

Mr. BROOKS. I would like to put into the record the figures furnished me from the Colorado station. The State of Colorado contributed during the year 1906, \$16,970, as against \$4,200 by the United States.

The CHAIRMAN. You say they contributed \$16,000?

Mr. BROOKS. Yes.

The CHAIRMAN. What is the detail of that? What are the items of that \$16,000?

Mr. BROOKS. They purchased a pasture for this particular work, \$4,500. They had to refence a good deal of it at an expense of \$1,660. (Posts cost \$130.) They purchased a stable and sheds, \$5,450. Office furniture, \$100. Fencing, paddocks, stalls, and so forth, \$1,200. Eight acres of land devoted to the paddocks and stalls, \$2,000. That is pretty high-priced land.

The CHAIRMAN. That is part of their experiment farm or only stables there?

Mr. BROOKS. Yes; but this 8 acres is not what they use for the other purpose. They purchased, I think, 60 acres of land at \$250 an acre, but that was that highly irrigated, cultivated land upon which the sugar beet is raised. Tools, harness, \$350; grading of land about the stables and paddocks, \$500; extra feed and bedding, \$1,100; services of one extra man, \$860; shoeing horses, medicine, etc., \$120; total, \$16,970. Now some small portion of that may be chargeable to other things, but not much.

Mr. HAUGEN. They bought a farm; that was a real estate investment.

Doctor MELVIN. You have not included in the Government estimate the cost of the animals.

Mr. BROOKS. I excluded that; yes.

Mr. LEVER. Will the experiment station make that same expenditure next year?

Mr. BROOKS. No; but a great deal larger one, if what I believe they can do can be done.

Do you think it would be advisable, Doctor Melvin, to condition any increased appropriation upon the State's cooperation. That is to say, is it not fair for this committee to say to the different States that we propose to put a breeding establishment in the State or to do work like the work that has been described in these other places, for instance, in Rhode Island and Vermont and Alabama; would it be fair for us to say to the State, we will do this in your State if you will agree to spend the same amount of money or more?

Doctor MELVIN. I think in all cases the State should equal the expenditures of the National Government.

Mr. COCKS. So do I.

The CHAIRMAN. However, they do not do it in all these cases. In the case of Colorado, of course Colorado has exceeded the amount spent by the National Government.

Doctor MELVIN. They may not have done it in actual cash, but they have in the way of facilities for conducting the experiments, buildings, equipment, and services of employees.

Mr. DAVIS. Do you think it would be a good idea for this committee to make a conditional appropriation of so many hundred or so many thousand dollars to each State in the Union—because they all differ somewhat in climate and other conditions—make the appropriation conditional upon the State meeting that amount for the purpose of the propagation and breeding of horses?

Doctor MELVIN. That seems to me the only fair way of putting it. It is only fair to all of the States to let them have an opportunity of cooperating in this work, if they desire to do so.

Mr. DAVIS. I asked that question in consequence of all the discussion that has been going on as to various objections from other sections to the species of horse propagated in Colorado; the horse bred there may not be the kind of horse they want in some other States, in the East or South, perhaps. Therefore, if you wanted a perfect horse for the conditions in any State, it might be found that you would have to have a horse bred there in that particular State. And so I say, would it not be well for this committee to inform the United States generally that upon their meeting certain conditions we will recommend appropriations for this purpose and let them go as much further as they see fit?

Doctor MELVIN. Do I understand you to confine that to the breeding of horses, or would you include other animals?

Mr. DAVIS. We might start in with the horse and extend it to other animals; yes. In Minnesota at the present time, of course, we have the finest stallions in the world. Dan Patch and one or two others are right in my district. They are considered very fine. Perhaps, however, the stock bred there would not do well in Tennessee or Colorado or some other State.

The CHAIRMAN. I was going to ask you about this little item of \$5,000:

That the Secretary of Agriculture is authorized to expend \$5,000 of the amount hereby appropriated to especially investigate hemorrhagic septicemia, infectious cerebro-spinal meningitis, and malignant catarrh prevalent among domestic animals in the State of Minnesota and adjoining States, to work out, if possible, in cooperation with the Minnesota Experiment Station, the problem of prevention by developing antitoxin or preventive vaccines, and to secure and domesticate animals in the State of Minnesota and adjoining States, to work out,

Is that disease especially prevalent there and not anywhere else?

Doctor MELVIN. It is more prevalent there than in other sections of the country.

The CHAIRMAN. What class of farm animal is it prevalent among?

Doctor MELVIN. Horses and cattle especially, so far as hemorrhagic septicemia is concerned. The malignant catarrh is more confined to cattle. We have a pathologist located at the experiment station in Minnesota, who is working on the disease in connection with the veterinarian of the State. The State furnished room and laboratory facilities, and they are now conducting their investigations.

The CHAIRMAN. Have you the detail of the expenditure of that \$5,000?

Doctor MELVIN. No. For the present fiscal year I have not got that—

The CHAIRMAN. What is hemorrhagic septicemia? I think I know what septicemia is, but what is hemorrhagic septicemia?

Doctor MELVIN. It is, briefly, a blood poisoning that manifests itself by tumors or swellings forming in different parts of the body. The investigation was to determine more carefully and fully the nature of the disease, to learn more about it.

The CHAIRMAN. Have you not had this disease elsewhere?

Doctor MELVIN. None as prevalent as in that section.

The CHAIRMAN. Is it prevalent in some one section of Minnesota, or is it all over the State?

Doctor MELVIN. I don't know just what sections of the State it is confined to. I think it exists somewhat in the Dakotas and other States.

Mr. DAVIS. Northern Minnesota and the Dakotas, chiefly.

The CHAIRMAN. I want to know whether it is a local trouble.

Doctor MELVIN. No, it is too extended to be called a local trouble.

The CHAIRMAN. I never heard of it until you brought the attention of the committee to it last year, Mr. Davis, and I supposed the treatment of it and the examination of it, and so forth, came under your general powers; I thought you had the general power to cover such cases as that without a special appropriation and provision for it.

Mr. DAVIS. It extends into Iowa, Wisconsin, Minnesota, and the Dakotas, four States, quite generally.

The CHAIRMAN. Is it in the dairy section?

Doctor MELVIN. Yes; it is all over that country there.

This item of \$5,000 was not in addition to the regular appropriation, but simply setting aside \$5,000 of the regular appropriation for that purpose.

The CHAIRMAN. I understand that; but we have rather avoided such special provisions or appropriations as that.

Mr. DAVIS. One general term for that is swamp fever.

Mr. LEVER. I would like to ask the Doctor what results he has gotten from the dairy experiments in the South?

The CHAIRMAN. That is treated of somewhat by the Secretary in his report. I imagine they have just about made a beginning. Have you any data on that subject with you, Doctor Melvin?

Doctor MELVIN. Yes, sir; I have more than I ought to have, I guess, in order to find it readily.

[Referring to memorandum.]

The southern dairy investigations are in charge of Mr. B. H. Rawl, assisted by six men. In this work \$9,526 has been expended the first half of the year. The work done in the different States is as follows:

North Carolina.—Time of Mr. J. A. Conover. Silos built or under way, 8; barns built or under way, 7; dairy farm management cooperations, 18; approximate cost, \$929.

South Carolina.—Half of time of Mr. J. E. Dorman after July 16. Silos built or under way, 16; barns built or under way, 9; dairy houses built or under way, 5; dairy farm management cooperations, 13; approximate cost \$629.

Georgia.—Half of time of J. E. Dorman, after July 16. Silos built or under way, 17; barns built or under way, 6; dairy houses built or under way, 7; dairy farm management cooperations, 19; approximate cost, \$608.

Tennessee.—Time of Mr. S. E. Barnes. Silos built or under way, 11; dairy farm management, 9; approximate cost, \$1,190.

Mississippi.—Time of Mr. J. W. Ridgway after July 16. Silo built, 1; dairy farm management cooperations, 15; approximate cost, \$1,096.

Texas.—Time of Mr. H. N. Slater after August 1. Silos built or under way, 4; creamery buildings finished or under way, 2; creamery management cooperations, 3; dairy farm management cooperations, 4; approximate cost, \$1,846.

Mr. Duncan Stuart, whose duty is to keep the records of the southern work, made a three months' trip in the South last fall, visiting 28 cities, to obtain information as to the source of supplies in that section of butter, cream, cheese, condensed milk, and in some cases of milk. We hope to have this report printed in the near future, as it contains very valuable information concerning the southern dairy markets and will be useful to the workers of this division in the South, as well as to the individual dairyman. Mr. Stuart's salary and expenses for the period herein reported amount to \$1,269.

In the general management of the southern work Mr. Rawl's salary and expenses amounted to \$1,921. Expenses of the chief on one southern trip amounted to \$80.

Mr. HAUGEN. How are these experts selected? Do they have any special qualifications?

Doctor MELVIN. Yes, sir; most of these came into the Department under temporary appointments as experts and afterwards qualified through the civil-service examination, and have entered the Department in that way, through competitive examination.

Mr. LEVER. Doctor, do you think the work has progressed far enough to warrant its continuance?

Doctor MELVIN. Oh, decidedly; I think it would necessarily have to continue for several years in order to have permanent value.

Mr. LEVER. What amount do you contemplate using for this purpose in your next fiscal year?

Doctor MELVIN. I don't think any increase has been asked for in this work.

Mr. LEVER. Mr. Chairman, as a matter of information to the committee I would say this: That just before the holiday adjournment I wrote a letter to all the experiment station men in the Southern States affected by this proposition, asking them to write me frankly any criticism of the work, or any suggestion, and I received replies from nearly all of them. I happen to have one letter in my pocket which I received in my mail this morning. I can say that nearly all of these replies are most favorable to the work and most favorable to the young men in charge of the work, and they all speak very highly of it and that there is great possibility in it. Here is one letter, which is rather typical of the letters that I have received, and with your permission I would like to read it so that it may go into the record.

This is from the experiment station in North Carolina, in charge of Mr. Kendall.

The CHAIRMAN. Very well; that may go into the record.

Mr. Lever read the following letter:

THE NORTH CAROLINA
COLLEGE OF AGRICULTURE AND MECHANIC ARTS,
West Raleigh, N. C., January 7, 1907.

HON. ASBURY F. LEVER,

*Committee on Agriculture, House of Representatives,
Washington, D. C.*

DEAR SIR: After an absence of three weeks I find your letter of December 20 in regard to the work which is being done by the U. S. Department of Agriculture for developing the dairy interests of the South.

I know of few bills affecting a like number of people, of similar interests, which have the possibility of doing more good where it is needed than the one to which you refer.

From a business standpoint I believe the opportunities for dairying in the South are as good as in any section of the United States. Nearly all of the large dairy markets are supplied by distant States. All dairy products command high prices. The long growing season, the mild climate, and the large yield of the best forage crops tend to make cheap production possible, and besides our lands demand just such farming as will be necessary to supply this home market.

This section is in need of such assistance as that for which this bill provides. Dairy methods are crude throughout the South. Very little improved dairy apparatus has been used. It is a common practice to churn whole milk. Few silos are used. The stock is inferior but capable of rapid improvement under proper management.

The advantage of this work it seems to me, is that it helps those that need assistance and at the same time benefits the community. The work which has been done in North Carolina seems to have met with favor, and instead of one man spending only part of his time in this State, as first planned, he will not be able to fill his engagements by devoting his entire time to this work.

There is another good feature about this work. At present we have very little reliable information relating to southern dairying. We have not the skimming stations, creameries, and cheese factories to go to for records, which makes the collecting of such data very difficult.

As to the future possibilities of this work in this section I would suggest that the present plans be worked out and extended to meet the requirements. When this has been accomplished, demonstration dairy farms should be established where conditions warrant. Such a farm would furnish information in regard to the cost of erecting and equipping the proper buildings for that locality, improvement of land under good management, of rotation and use of live stock, the improvement of native herds by selecting and breeding, and could be used as headquarters and a source of reliable data for all farm operations for that section.

I am heartily in sympathy with this work and hope to see it continue.

Respectfully, yours,

J. C. KENDALL.

The CHAIRMAN. As I understand it, the Department proposes to continue the work?

Doctor MELVIN. Yes, sir.

Mr. SCOTT. I should like to inquire whether any results have been obtained that the Department thinks important in the matter of developing an antitoxin for hog cholera?

Doctor MELVIN. We have in the Bureau a division for perfecting a method of serum inoculation for the prevention of hog cholera. The patent was taken out by the inventor, Doctor Dorset, in the name of the Department for the use of the people of the country to protect the method for the people. We have not yet put this into practical operation. We have not expected to do so until we could make

further demonstration, but it bids fair to be a very effective means of preventing hog cholera. It is simply the inoculation, the injection of the serum of an immune hog into susceptible hogs. We propose to do this when the pigs are small and only in localities where there is a probability of the disease developing. We will do it when the pigs are from 4 to 6 weeks old.

It can be done then more economically on account of the smaller dose required at that age of the pig. I hope during the coming year—we have a number of these hogs at Ames, Iowa, where we have rented a small pasture—to distribute some of these hogs—either the hogs themselves or the serum after being prepared—to the experiment stations and have them make demonstration as to its efficiency.

The CHAIRMAN. You spoke of experimenting with tuberculosis serum at your Bethesda station. What results have you obtained there?

Doctor MELVIN. That has not progressed far enough to determine what the result will be. That experiment will probably have to extend over two or three years before we come to any positive results.

The CHAIRMAN. I am going to make a suggestion, although it is perhaps unnecessary. Our dairy people up North are beginning to find that alfalfa is a cheaper and better milk producer than ensilage, and wherever alfalfa can be grown in the South it is a question worth looking into before the building of silos. I have found it a great deal cheaper than the building of silos. In 1906—I have just closed my books—I had on a little farm 13 cows, and in addition to the skim milk that I kept myself and all the milk and cream and butter that I could use on the farm—a big farm of 2,000 acres—those cows yielded me an excess of what I mentioned, without one particle of grain, \$54.66 a head. That was on alfalfa. I feed them alfalfa in the winter and a good, ordinary, blue-grass pasture in the summer. If you can make a cow produce that without grain, you have pretty nearly the cheapest kind of milk.

Doctor MELVIN. Speaking of alfalfa, at our experiment station at Bethesda we have a field of alfalfa, but we use that principally for green feed. We cut that three times a year.

The CHAIRMAN. I was speaking to Mr. Lever on this point last year, suggesting that it will be well to go pretty slow about advising farmers to invest in silos, because alfalfa is so much cheaper where it can be grown, and you can soil with it.

Mr. LEVER. I will say now that the Bureau of Plant Industry is now conducting a number of experiments with the view of determining whether we can grow alfalfa in the South.

Mr. COCKS. Don't you think there are as many silos abandoned in New York each year as are built? They can not use them in the condensed-milk business at all.

The CHAIRMAN. That is true.

Mr. COCKS. The Borden people I know compensated a great many men for the construction of silos.

Mr. HENRY. It was thought some years ago they could not use them in making butter of the best grade, and now the very best butter is produced on silos.

Mr. HAUGEN. Does the alfalfa do well in New York?

The CHAIRMAN. Oh, yes; it does splendidly.

Mr. BROOKS. Can you not produce it in New England?

Mr. HENRY. Only to a very limited extent. The hardpan, or the rock, is too near the surface.

Mr. BROOKS. It needs a pretty deep soil.

Mr. HENRY. Yes. I think I built the first silos east of the Connecticut River, and it was several years before the farmers took hold of them, but now you can find hundreds of them there, and I don't know any that have been abandoned.

Mr. COCKS. I think in the Harlem Valley, or in the dairy section tributary to the Delaware, Lackawanna and Western, they raise alfalfa very well.

The CHAIRMAN. The best piece I have got is on the best wheat land I have.

Thereupon (at 12.30 p. m.) the committee took a recess until 2 o'clock p. m.

AFTER RECESS.

The committee reconvened at 2 o'clock p. m., Hon. James W. Wadsworth (chairman) in the chair.

STATEMENT OF DR. ALONZO D. MELVIN—Continued.

The CHAIRMAN. In the consideration of the estimates of appropriations we have reached the meat-inspection item, and I think the committee would be very much interested to know something about the workings of the act, and to hear any suggestions that you may have to make in regard to amendments, Doctor, and if you will just take up any one establishment and tell us how you have manned it, and the cost of manning it, we would be glad to hear you. Have you those data? Take up a small one or a big one and just tell us what it costs to man any one packing house in Kansas City or Chicago. Have you that information here?

Doctor MELVIN. No; I have not.

The CHAIRMAN. Take up first the estimates themselves. Are there any amendments that you want that experience has shown to be wise and necessary?

Doctor MELVIN. There have been several small features of the act that were rather embarrassing in relation to its complete enforcement, and there is one suggestion that I might make for modifying it, in reference to the shipment of dressed calves and lambs to market centers. This is an extremely large industry, particularly through New England and for quite a radius around Chicago, extending into Michigan, Wisconsin, Minnesota, and Illinois, although Illinois would not be affected, as that would be entirely within the State; also Indiana and Iowa.

Mr. SCOTT. Pardon me. You are referring now to the practice of small butchers near the great cities slaughtering these animals and shipping them in?

Doctor MELVIN. Yes.

The CHAIRMAN. Calves and lambs particularly?

Doctor MELVIN. Small butchers and also agents and produce dealers in outlying smaller towns buying them from the farmers and shipping them.

The CHAIRMAN. What they call hog dressed?

Doctor MELVIN. Yes; hog-dressed calves and lambs. It is very exceptional that any disease is found among these animals between the ages of 3 weeks and 6 months, and it is a great cruelty to compel them to be shipped alive, as at that age they subsist almost entirely on the mother's milk, and if you take them away from that it is simply a starvation question until they are slaughtered; and if those animals could be exempt from inspection it would facilitate matters a great deal.

The CHAIRMAN. Without any danger to the public?

Doctor MELVIN. Without any danger to the public.

Mr. SCOTT. Have you framed your suggestion into a sentence or a paragraph?

Doctor MELVIN. No, sir; it is not in the estimate. That bill was drawn in August and the meat-inspection bill practically did not become effective until October 1, although it did actually go into effect the 1st of July. These points were brought out since the operation of the bill and since it was put in force.

Mr. SCOTT. Do you think that the inspection in the matter you referred to could be eliminated without endangering the whole inspection system? Would not the privilege of taking uninspected calves to the market, for example, be liable to abuse that would be hard to correct?

Doctor MELVIN. I hardly think so, because the bill already includes a clause or provision which makes anyone liable who sells for human consumption any diseased animal, irrespective of whether it is inspected or not.

The CHAIRMAN. Inspected or not?

Doctor MELVIN. Yes. And I think that would cover anyone who would sell diseased animals under any conditions—any circumstances.

Mr. SCOTT. Of course the trouble with that is that without an inspection one might sell diseased meat for years without being detected.

Doctor MELVIN. I did not get the last part of your remark.

Mr. SCOTT. I say a dealer might sell diseased meat for years without inspection and might never be detected. He might not know himself that it was diseased.

The CHAIRMAN. Suppose, if you are convinced in your own mind that such a provision ought to be included in the bill, that you draw it, and we will take that matter up in the full committee and give it consideration.

Doctor MELVIN. There is another feature of the bill that we found not altogether to our liking, and that is the unqualified marking of all passed meats "Inspected and passed." It subjects the inspection to considerable criticism in this way: There are only two methods provided for marking them. They are either to be marked "Inspected and passed" or they are to be marked "Condemned," and without any reference to the quality of the product. A first-class meat product would be marked "Inspected and passed," the same as an inferior meat product would be marked "Inspected and passed," and while the latter might be wholesome and fit for food it is of a very poor quality. It would be something that should not be condemned, and yet it stands with as high approval as the best quality of meat.

The CHAIRMAN. If you went the next step with that, the Government would be grading meats.

Doctor MELVIN. Would it not possibly be well to do that, to some extent, at least, rather than have them all——

The CHAIRMAN. I think if you pass on the wholesomeness of it you had better let the consumer pass upon the quality of it. You might apply that to potatoes or cheese or anything else with equal force, I should think.

Mr. SCOTT. When you use the word "inferior" do you refer to meat that is from animals which are poor and old?

Doctor MELVIN. Yes; that and also in cured meats; some meats that after having been cured are not in as prime condition as some others. They may be nutritious and fit for food, and to condemn them would take them from a class of poor people who can not buy any other kind of meats.

Mr. SCOTT. Does this suggestion come from the packers or from the consumers?

Doctor MELVIN. No, sir; from myself. That has been my observation.

Mr. SCOTT. The packers have not complained about it?

Doctor MELVIN. Not at all; no, sir.

Mr. FIELD. Would not that be a departure from the real object of the bill, to ascertain whether it was diseased or not?

The CHAIRMAN. I think the real object of the bill is to assure the public that what they are eating is wholesome.

Mr. FIELD. Yes.

Mr. SCOTT. That is all.

The CHAIRMAN. And whether it is fit for food.

Mr. FIELD. And it is not to say whether one kind of meat is better than another.

The CHAIRMAN. Leave that to the consumer. He will not repeat it. If he has bought a poor piece of meat and wants a better piece, he will get it the next time.

Doctor MELVIN. The consumer must be the judge in the end, after all, because this meat, after it is inspected and passed, may deteriorate and become decomposed, and the consumer has to be the inspector in such cases.

Mr. HAUGEN. Do these butchers encounter any difficulty in having carcasses shipped? The butchers and farmers are exempt, are they not?

Doctor MELVIN. The retail butchers are exempt, and the farmers when slaughtering their stock upon the farm.

Mr. HAUGEN. When these carcasses are offered for shipment are they accepted by the railroad company?

Doctor MELVIN. The Department has provided for a certificate which may be given by the farmer to the transportation company in order that they may receive the dressed animals for transportation. This certificate I have here, and perhaps I had better read a part of it.

Mr. HAUGEN. Have there been any complaints?

Mr. LAMB. This certificate covers it. I have had right much experience on that line.

Doctor MELVIN. The farmers were provided for under regulation 56, covering meat inspection. [Reading:]

Regulation 56. Farmers.—When any carcass, part of carcass, or meat food product of cattle, sheep, swine, or goats is offered to any common carrier for transportation from one State or Territory or the District of Columbia to another State or Territory or the District of Columbia by a farmer, the common carrier shall require the following certificate from the said farmer, which certificate shall be filled out in duplicate:

(Date)....., 190 .

Name of railroad to which offered:.....

Shipper:

Consignee:

Point of shipment:.....

Point of destination:.....

Car number and initial:.....

Then he certifies:

I hereby certify that I am a farmer, and that the following-described uninspected carcasses or parts thereof have been slaughtered by me upon my farm and are offered for shipment in interstate commerce as exempted from inspection according to act of Congress of June 30, 1906. The said meat or meat food products are sound, healthful, wholesome, and fit for human food.

That is signed by himself, with his address.

Mr. HAUGEN. Are all the agents supplied with blanks now, so that the farmer can go to the station and fill out his blank?

Doctor MELVIN. I think they are, wherever they ship much of such products.

A somewhat similar certificate is provided for under regulation 55 for the retail butchers and retail dealers. It has been a rather hard matter to ascertain what were retail butchers and dealers, or rather, who were retail butchers and dealers and who were not, but in a general way we have taken the ground that one who sells meat or food products to the dealer to be resold is a wholesaler, and that those who sell to consumers only are retailers.

There have been a number of instances where people were doing a wholesale business in a very small way, and where it would be impracticable, utterly impracticable, to supply inspection. In many cases, particularly near State lines, small butchers have been killing three or four cattle and perhaps the same number of sheep and swine a week. To supply a man at \$100 a month to inspect those few animals would seem absurd.

The CHAIRMAN. That question came up last year in considering the bill.

Doctor MELVIN. Yes; and yet many of these men do a wholesale business.

The CHAIRMAN. They sell to the village butcher by the quarter?

Doctor MELVIN. Yes; and often they supply each other. We had a case in Arizona where a butcher occasionally shipped a quarter of beef or a piece of mutton over to another butcher in California, and that butcher occasionally shipped to him. They exchanged back and forth.

The CHAIRMAN. What did you do in that individual case?

Doctor MELVIN. We arbitrarily gave him exemption. We provide for a certificate of exemption. This certificate is numbered, and they could use this number of their exemption certificate in filling out their certificate to the railroad company. We provided for

these certificates in order that the railroad company might be relieved of the responsibility of examining all packages that were offered them for shipment as to whether they could be transported under the law or not. Otherwise it would have been necessary for them to unload and examine every package and carload of product that was offered to them. And we make the shipper assume the liability as to whether those products can be shipped under the law. I found that in the law there was no provision made for consumers themselves.

The CHAIRMAN. That is killing for themselves?

Doctor MELVIN. Yes; for instance, here in the District many of these persons who were employed in the District live outside of the District, and they come in with their market basket and buy the provisions, and take them home with them in the evening; or they have them sent out to them during the day, and there is no provision for that whatever.

The CHAIRMAN. Would not that come under the head of the retailer selling to the consumer?

Doctor MELVIN. It would seem so; the retailer would have to provide this. But the man appears at the railroad station with his market basket without a certificate. Where we have been asked for an opinion regarding such cases, we have said that we did not intend to enforce the law to such extremes; but it is not specified in the law that they are exempt. There are several cases where persons have raised a hog or two and shipped a ham or two to some of their friends in another State, and they are not retail butchers, and they are not retail dealers.

The CHAIRMAN. No; for instance, if a friend of yours wanted to ship you some sausages from Arizona, there is no provision in the law covering it, and under the strict interpretation the railroad could not carry it; I mean a friend—a farmer or anybody else.

All those things you think you had better leave for the present for another year's experience?

Doctor MELVIN. Well, I desire to leave that for the consideration of the Committee. I merely present these things for your information.

The CHAIRMAN. I say it with all respect, but I do not think that the committee is competent to pass upon it. You know the working of the law so much better than we can possibly know it that it is your opinion that we would like to have.

Doctor MELVIN. The general action of the bill has been found to be very effective, and there is no doubt that it has resulted in a great deal of good, and I would not like to endanger it by suggesting changes.

The CHAIRMAN. That was my own opinion, that we ought to go very carefully this year, so as to get another year's experience.

Mr. SCOTT. Have you found a disposition in any quarter to evade the operation of the law upon the part of those to whom it applied?

Doctor MELVIN. In a few instances, but not generally. It has been very hard for many to comply with the sanitary requirements of the Department's rules. In a few instances people voluntarily went out of business rather than expend the money necessary to put their establishments in a proper sanitary condition.

Mr. SCOTT. Those, of course, were small dealers?

Doctor MELVIN. Yes; some of those were small affairs.

Mr. BROOKS. Were they, as a rule, in the city or in the country?

Doctor MELVIN. They were in the cities, most of them. We have had several cases where retail butchers applied for exemption, and we investigated their premises and found them very filthy, and declined to furnish them with the exemption certificate until they would clean them up.

Mr. SCOTT. Have you had applications for inspectors that you have not been able to supply?

Doctor MELVIN. No, sir; we have provided inspection at all places where we deemed it necessary, and at some where they had not applied they were required to have it or to forfeit their interstate business.

Mr. BROOKS. If they applied and you did not furnish the inspection, you would necessarily have to give them an exemption certificate?

Doctor MELVIN. Either one or the other. We have tried to furnish them inspection or give them exemption, provided the conditions of their establishments were satisfactory.

Mr. SCOTT. What sort of a financial exhibit are you prepared to make? Can you state definitely whether the appropriation made last year will carry you through the year?

Doctor MELVIN. Yes; there is no doubt about it.

The CHAIRMAN. Let us take up some other little details before we go into that. If you have not any other suggestions or amendments with regard to changes of the law, suppose you tell the committee now just how you put this measure in operation in an individual establishment.

Doctor MELVIN. Well, they came on us all at once, and it was pretty hard to do it.

The CHAIRMAN. You have some establishment in your mind. Tell us how you go to work, from the beginning. Never mind the ante-mortem inspection; we all know about that—that is in the yard—but take the post-mortem examination of a bullock or a hog and follow it up to the end, and tell us where your inspectors are placed.

Doctor MELVIN. Take it in one of the larger houses. We have three inspectors on hogs. One inspector is located where the head is nearly severed from the body—not entirely. His duty is to feel and see the cervical glands of the neck. They are the glands that are usually affected if a hog has tuberculosis. In case he finds these glands affected, the hog then goes to what we call a retaining room, a separate room which has an impervious floor and ceiling and is set aside for such hogs. No further operation is made on that hog, which is not disemboweled until it reaches this retaining room.

The CHAIRMAN. That is a change from the former way, is it not?

Doctor MELVIN. Yes; we consider that that avoids dressing the hog with the other hogs, and there is no chance for the blood to become smeared upon the carcasses of adjoining hogs. Then another inspector is located where the hog is disemboweled, and these intestines and lungs are thrown directly in front of him on a table, so that he can handle each set sent to him and ascertain whether there is any disease in them. In case there is, the intestines and lungs are attached to the hog, and he is shunted into this retaining room for further investigation. Then a third man makes a minute investiga-

tion of these hogs that are sent to the retaining room. An operating table, a small table, is provided, and a good light, and an antiseptic box. At all of these places boxes containing fluid antiseptics are provided for the disinfection of knives and hands after finding an affected hog. Here a minute examination is made of this hog, and it is determined there what disposition shall be made of him. Separate trucks are provided in which the diseased hogs are placed and in which those that are passed are placed.

The CHAIRMAN. That is the post-mortem of the hog?

Doctor MELVIN. Yes.

The CHAIRMAN. Then you return to the hands of the company the hogs that are passed for meat—for consumption?

Doctor MELVIN. Yes.

The CHAIRMAN. And those that are condemned go directly to the tank?

Doctor MELVIN. Yes, sir; they go into a tank in which a considerable quantity of offal is placed so as to render the grease unfit for food, so as to discolor it, and in addition the tank is sealed both at the top and bottom.

The CHAIRMAN. Now take up the cattle inspection.

Doctor MELVIN. The inspection of cattle is practically the same as it was, as I described it last year.

The CHAIRMAN. How many inspectors have you on cattle in a place of that size on the post-mortem?

Doctor MELVIN. I would say in regard to this hog inspection that as far as possible all three of these inspectors rotate—that is, each man takes the work of another man—and change their work and relieve each other in that way.

The CHAIRMAN. What is the salary of these inspectors?

Doctor MELVIN. The salary of the veterinarians—the entrance salary—is \$1,200.

The CHAIRMAN. Those three inspectors are all at the same salary?

Doctor MELVIN. Not all the same. They are increased according to length of service, and their efficiency, of course, is considered.

The CHAIRMAN. Some of them enter at \$1,200?

Doctor MELVIN. Yes.

The CHAIRMAN. Now go on with your description of the cattle inspection.

Doctor MELVIN. There are usually two inspectors at the large houses where cattle are killed, and both of these are veterinarians. They alternate and are on duty two hours each—two hours on and two hours off—the idea being that it is very confining work, and frequently they are employed from ten to twelve hours; not usually, however. That is not the average time, but it is not infrequent that they do work that long in a day. These men must walk back and forth, while the hog inspectors remain at one point. If the cattle inspectors are on duty longer than that, they may become somewhat relaxed in their work.

The CHAIRMAN. What is the actual post-mortem examination of a bullock after he is killed?

Doctor MELVIN. The cattle, instead of being run along on rails from one workman to the other, as hogs do, are run out on a rail and dropped onto the floor on what they call beds, and they are there skinned; but before being completely skinned the carcass is partly

hoisted and the animal is disemboweled. The inspector is constantly present when these animals are disemboweled and actually sees, or where necessary actually handles, the intestines from each animal slaughtered, and he passes from one animal to the other.

The CHAIRMAN. Is it a question of glands also with the cattle, the same as with the hogs?

Doctor MELVIN. Not so largely as with the hogs. There is a much larger percentage of tuberculosis among hogs than among cattle—that is, among beef cattle.

The CHAIRMAN. What is the main trouble you find with cattle on the post-mortem?

Doctor MELVIN. I think tuberculosis also—that is the main trouble.

The CHAIRMAN. It is the main trouble with cattle also?

Doctor MELVIN. Yes.

Mr. FIELD. About what percentage of hogs is found diseased and rejected absolutely as food?

Doctor MELVIN. Our report, of course, would show the positive figures.

Mr. FIELD. Yes.

Doctor MELVIN. I think about three-tenths of 1 per cent.

The CHAIRMAN. On cattle?

Mr. FIELD. On hogs.

The CHAIRMAN. On hogs; yes. It had been running up to $1\frac{1}{2}$, I believe, for a time. It ran very high on some hogs butchered up in that dairy section in Wisconsin.

Doctor MELVIN. At some stations it ran in some droves of hogs as high as 80 per cent in a single drove—a single carload.

Mr. FIELD. Is it not true that the percentage of diseased hogs is greater in those sections where they have bred the hogs up and forced the growth rapidly?

Doctor MELVIN. It is usually higher in the dairy sections, irrespective of the breeding of the hogs. In some experiments that we have completed during the past year at our experiment station we determined that hogs could become affected with tuberculosis by eating the faeces from cows that were affected with tuberculosis—in other words, hogs that follow cattle that are affected with tuberculosis will almost invariably acquire tuberculosis. The germs of the disease pass through with the faeces and are taken up by the hogs.

Mr. FIELD. Is the percentage of diseased cattle greater or less than that of hogs?

Doctor MELVIN. It is less. That ought to be qualified, too. It is according to the section of the country from which they come. From the pasture and range country—strictly beef cattle—the percentage of tuberculosis is very small, while in some sections the percentage of tuberculosis among dairy and breeding cattle is very large. An exporter of thoroughbred cattle who lives in Indiana bought a shipment for export. These cattle were purchased in Illinois, Missouri, Kentucky, Indiana, and Ohio. All these cattle were tested for tuberculosis by Bureau inspectors. He would accumulate a number in a certain section, and we would send the most available veterinarian to this section and test them. Out of that shipment there were 50 per cent rejected for tuberculosis.

The CHAIRMAN. And probably each one of those cattle was in splendid condition?

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Doctor MELVIN. They were the best cattle, the shipper told me.

The CHAIRMAN. In a case like that the ante-mortem examination would be perfectly useless?

Doctor MELVIN. Yes.

The CHAIRMAN. That is very striking, that an animal can show strong lesions like that, and yet be apparently in good condition.

Doctor MELVIN. Yes.

Mr. HENRY. These were Jerseys, mostly, I suppose?

Doctor MELVIN. No, sir; they were Shorthorns.

Mr. HENRY. Do you think if they had remained on the farm they would have had tuberculosis?

Doctor MELVIN. They had it at the time.

Mr. HENRY. I know; no doubt it was present in a latent form, but do you think it would have developed if they had remained on the farm?

Doctor MELVIN. Oh, I have made a number of post-mortem examinations of animals apparently in the best of health, fat, and in fine condition in every way, apparently in perfect health, and upon post-mortem examination they would be simply rotten with tuberculosis; the lungs, intestines, liver, and spleen all affected.

Mr. FIELD. With the cattle you have described, in good condition otherwise, is it deleterious to eat them?

Doctor MELVIN. It is the accepted idea in all countries now that tuberculosis is transmissible. That has not been absolutely proven.

Mr. FIELD. I can not understand why an animal in good condition should not be used.

Mr. LAMB. Is not all possibility of injury eliminated by the process of cooking?

Mr. HENRY. Right there, I have known calves fed on tuberculous milk, from tuberculous cows, which were affected and condemned, and the calves were raised healthy, and were kept until they were 3 or 4 years old, and never developed any symptoms of tuberculosis.

Doctor MELVIN. It frequently occurs that the milk from tuberculous cows, providing the udder itself is not affected, does not contain the germs of the disease.

The CHAIRMAN. It may skip a generation, just as it does in human beings.

Doctor MELVIN. There is always danger of the udder becoming soiled with the feces, and portions of those dropping into the milk, and contaminating the milk.

The CHAIRMAN. Now, you had reached that point in regard to the post-mortem of the bullock's body. Where do you take him next? Does he go through the same process as the hog?

Doctor MELVIN. In case of any question in regard to the extent of the disease which would render the animal unfit for food or not, he is then conveyed to a similar retaining room, where a further and closer examination is made. Ordinarily, however, if an animal is condemned at that time, he is taken directly to the tank and placed in a tank or sent to a retaining or condemned room, and several are tanked at one time by a lower grade man who has to do with the tanking and oversees the tanking and sealing.

The sheep inspection and the calf inspection are conducted very much the same as the cattle inspection.

The CHAIRMAN. How many inspectors would you have for the sheep and calves?

Doctor MELVIN. Usually one. They usually slaughter the calves and sheep in adjoining parts of the building—that is, on the same floor—so that one inspector can oversee the slaughtering of both classes of animals. Both of these classes of animals are usually free of disease, and it does not require the same close supervision that it does with hogs and cattle.

The CHAIRMAN. That inspection practically is just about what you had under the old law?

Doctor MELVIN. Yes, sir.

The CHAIRMAN. Up to that point. Now you have got the carcasses in the coolers. Now, what is your inspection of the cooler, as you carry it along through the manufacturing process?

Mr. FIELD. I would like to ask one question for information.

The CHAIRMAN. Certainly.

Mr. FIELD. Have these inspectors discretion, or are they compelled to reject the carcass? In other words, have they discretion to say whether a carcass is unfit for food or not?

Doctor MELVIN. The Department, as near as it can, describes the condition at which animals shall be condemned and where they may be passed for food; but the judgment as to when a disease has reached the point where the animal shall be condemned or passed must necessarily rest with the inspector.

Mr. FIELD. The mere presence of the disease does not necessarily mean that he must reject it?

Doctor MELVIN. No, sir.

Mr. FIELD. They will still have the discretion to say whether it is fit for food?

Doctor MELVIN. If, in their judgment, the disease has not reached this condition where the regulations say that the animal shall be condemned, they will pass it.

Mr. FIELD. There are rules governing their action?

Doctor MELVIN. Yes.

Mr. FIELD. From the Department?

Doctor MELVIN. Yes. The passed hogs, for instance, after they have been killed, come out on the cutting floor to be cut up into the different cuts. Our inspectors—these are the meat inspectors—supervise this process and see that the pieces are kept off of the floor, that the tables on which the animals are cut up are kept clean, that the employees of the packing house are clean and do not soil the meats with dirty clothing or dirty hands, and all of the meat cutting is supervised in that way.

The CHAIRMAN. That really comes under the sanitary regulations, does it not?

Doctor MELVIN. That is under the sanitary regulations. After meat has been in pickle and is taken out the meat inspector, together with the inspector for the establishment, inspects the meat to see whether it has been thoroughly cured or not, and any that is not thoroughly cured and is unfit for food is condemned at that time. It is also inspected after it has gone through the smoking process. Fresh meats are inspected before they are shipped out of the establishment, to see whether they are in fit condition or not. The making of sausage is supervised to see that only clean and wholesome

meats are used, and that the whole process is conducted in a cleanly manner.

The CHAIRMAN. What actual reform has taken place in the dress and clothing of the workmen? Have you inaugurated white clothing?

Doctor MELVIN. We have not conducted any definite reform in the matter of clothing, but the meat handlers are required to have some apron or outer garment that is capable of being kept clean. When they are handling wet meats they usually have an impervious apron next to their clothing and a washable apron outside of that.

Mr. SCOTT. At the institutions I visited at Kansas City the inspectors wore an official cap with a badge.

The CHAIRMAN. The inspectors did?

Mr. SCOTT. Yes.

The CHAIRMAN. I asked Doctor Melvin if the employees were required to use a uniform in the way of white aprons, and all that sort of thing.

Mr. SCOTT. I misunderstood your question.

Doctor MELVIN. It varies. At some establishments they have adopted a uniform for their employees. The women have a certain sort of garment which they use, with caps—white caps—and the men have another sort of uniform. At one place they have established three colors, I believe, for their uniforms, one for those who handle meats, and another for their mechanics, and another for their common laborers—I think it is something of that sort—so that the color will distinguish the kind of work that the person is doing. At Kansas City the employees of the Department voluntarily adopted a uniform of their own, a washable uniform; but that has not been made general. The regulations require employees of this Department to conform to the same general sanitary regulations as the employees in the establishment would, and to keep themselves clean and their clothing clean. These meat inspectors also have to inspect the meat that is received from other official establishments. Many shipments are made from one official establishment to another, and each shipment is required to be inspected before it is admitted into the establishment.

The others are assigned to the oleo departments and the lard departments, to see that only clean and wholesome fats are used and that the fats after they are made into lard or oleo or oleomargarine, or whatever it may be, are properly labeled, and have no false or deceptive labels placed upon them. The canning room is also under supervision, where they do canning, to see that only wholesome meats are used, and that no false labels are placed upon the cans.

The CHAIRMAN. How do you know that no ingredients injurious to health are used?

Doctor MELVIN. The Department has specified certain preservatives and ingredients which may be used, and others are prohibited. Those that are permitted to be used are such as have been in use for many years and have not been found detrimental to health.

The CHAIRMAN. Could preservatives be surreptitiously mixed with these food products without the inspectors knowing it, do you think?

Doctor MELVIN. We have undertaken to keep a check on that by having small chemical laboratories established at various centers. We have one at Omaha, one at Kansas City, one at Chicago, one

at Cincinnati, and one here in Washington, and one in New York City. Different products are taken at different times and subjected to chemical analyses, and also the pickle in which the meats are cured, and their salts and spices, and different things of that sort, are occasionally examined.

Mr. LAMB. Are they allowed to use borax now?

Doctor MELVIN. No, sir.

The CHAIRMAN. So far, have you found any injurious preservatives being used?

Doctor MELVIN. We found one establishment in New York, a small sausage concern, that was using a prohibited preservative, and inspection was withdrawn from that place. In one other instance, which is still under investigation, a prohibited coloring matter was used.

The CHAIRMAN. In the manufacture of what?

Doctor MELVIN. That was in the manufacture of sausage, also, I believe.

Mr. Cox. Does that mean that these fellows are still going on manufacturing, only it is not marked "Inspected and passed?"

Doctor MELVIN. No, sir. In this latter case the practice was stopped, of course—the use of this color. It was a branch establishment of a larger concern, and the principal establishment was asked why this had been permitted and why it had been done, and the case has not yet been decided as to the final action.

Mr. Cox. In the case you spoke of where the inspection was withdrawn—that did not mean that the establishment ceased doing business, did it?

Doctor MELVIN. They had to forego their interstate trade. Of course they may continue their business within the State.

Mr. BROOKS. What was the effect on the business of that concern from which inspection was removed?

Doctor MELVIN. Their principal business was within the State, and it did not affect them very materially.

Mr. SCOTT. Have you any opportunity to find out to what extent the great packing concerns were obliged to modify their methods, or their formulas, in order to comply with the new regulations?

Doctor MELVIN. Well, it was the general practice to use borax in small quantities in nearly all their pickled meats, except that which they sold within States which prohibited the use of it. Those meats shipped to those States were prepared without it. In other instances it was almost invariably used in the pickle.

Mr. BROOKS. Are the big concerns still using borax or boracic acid for their interstate business?

Doctor MELVIN. No, sir; the policy of the Department has been when it commences inspection or inaugurates inspection at an establishment, to have the same rules apply, no matter whether the product is for use within the State or without the State. It would be impossible to make any other rule.

Mr. BROOKS. They could not feasibly have two systems.

Doctor MELVIN. No; they would have to separate their business and provide separate establishments.

Mr. SCOTT. Have you had any complaint from any of the packers that your refusal to allow them to use chemicals that they have been

using, dye stuffs or preservatives, was interfering with their business?

Doctor MELVIN. Yes; in some respects. They wanted the use of a color in oleo oil, which was exported principally to Turkey. They wanted to use a vegetable compound called anatto.

The CHAIRMAN. That is used in the coloring of butter. You said anatto?

Doctor MELVIN. Yes; that was permitted in the case of oleo oil. We have not permitted the use of coloring matter in any other meat compound, and we have not had any direct complaints regarding its prohibition.

The CHAIRMAN. Was anything used by the respectable packers before the enactment of this law?

Doctor MELVIN. Yes, sir.

The CHAIRMAN. What was that?

Doctor MELVIN. Usually a coal-tar dye of some sort.

The CHAIRMAN. In the preparation of what?

Doctor MELVIN. Principally of sausages. Almost all sausages were colored somewhat. And since they have all abandoned the use of it, we have failed to hear any complaints. I think it was entirely unnecessary, and I think they have come to that conclusion themselves.

The CHAIRMAN. It is similar to the fashion in coloring butter; it is absolutely unnecessary as far as the product itself is concerned.

Doctor MELVIN. Yes.

Mr. SCOTT. It has not been brought to your attention, then, that any considerable quantity of meats have been spoiled as the result, so claimed by the packers, on account of your refusal to allow them to use preservatives?

Doctor MELVIN. No, sir; not directly; that is, in considerable quantities. We had a case yesterday of a meat manufacturer from Massachusetts who complained because he was not permitted to use a preservative in his sausage.

The CHAIRMAN. That was Massachusetts sausage?

Doctor MELVIN. Yes. He claimed that it caused his sausages to spoil quicker, and he was unable to market them within a few days from the time of the making.

Mr. BROOKS. What preservative would be used in a case like that, borax, or what?

Doctor MELVIN. He desired to use benzoate of soda.

Mr. BROOKS. Would benzoate of soda be harmful?

Doctor MELVIN. I am not prepared to answer whether it would or not.

The CHAIRMAN. Why are you not, Doctor; because men differ on it? Is it because scientists differ as to whether it is injurious to health or not?

Doctor MELVIN. Yes; I think they do differ; there is no doubt of that. They differ on borax, too; the most eminent authorities differ on that.

Mr. SCOTT. Right along this line, one more question. I noticed the other day in a business place here in Washington a keg of cider exposed for sale labeled "Sweet cider, to which has been added a small quantity of benzoate of soda." Now, if it is doubtful whether benzoate of soda is injurious to health, I should not think that the

Department would allow a product to be sold with that adulterant or preservative.

Doctor MELVIN. They may do so, I understand.

The CHAIRMAN. That comes under Doctor Wiley's bureau, does it not?

Doctor MELVIN. So far as products other than meats are concerned, it would. The pure-food regulations regarding the use of preservatives—that is, as to what preservatives may be used, and to what amount, or what are harmful and what are not—have not yet been made, and I presume that the same policy will be followed under both laws, that if a preservative is permitted to be used under the one law, it will be under the other, so far as practicable.

The CHAIRMAN. That is, if the chemists of both bureaus agree?

Doctor MELVIN. Of course the Secretary—

The CHAIRMAN. Will decide?

Doctor MELVIN. He is the one who makes the regulations.

Mr. COCKS. And he will agree with himself.

Mr. HENRY. Did you permit this Massachusetts sausage manufacturer to continue the use of a preservative?

Doctor MELVIN. The question is still before us, I believe.

Mr. FIELD. Is there any inspection of fresh fish and oysters?

Doctor MELVIN. No, sir.

Mr. LAMB. They have got State inspection of that stuff.

Doctor MELVIN. I understood that you referred to this law that we are now discussing. Of course under this law they are not provided for at all, and I do not know of any Federal inspection of those products; but, as Mr. Lamb says, the States may do that.

Mr. LAMB. We have a rigid inspection in Richmond.

The CHAIRMAN. Have you had any trouble in deciding upon the labels? I have seen in the paper every once in a while some discussion, some dispatches and what not, about mislabeling, and that sort of thing. Have you had any trouble about the old labels they were using before this law went into effect?

Doctor MELVIN. Yes.

The CHAIRMAN. What did you do with the roast-beef labels, for instance?

Doctor MELVIN. It was finally decided that on the product which they formerly called roast beef they could attach a label calling it "roast beef," and underneath say "parboiled and steam roasted," qualifying it in that way.

The CHAIRMAN. "Parboiled and steam roasted?"

Doctor MELVIN. Yes.

The CHAIRMAN. What other labels did you make them change?

Doctor MELVIN. We required them to stop using the words "leaf lard" where the lard was not made out of the leaf fat. A great deal of their pure lard which was called "leaf lard" was not made out of that fat.

The CHAIRMAN. Right there, was your inspection in the establishments so that you could determine which lard was made of leaf and which not?

Doctor MELVIN. We are trying to determine that; yes, sir. That is usually possible.

The CHAIRMAN. Is it possible after manufacture?

Doctor MELVIN. No.

The CHAIRMAN. You had to determine it, then, before the raw material, as it were, went into the process of being manufactured into lard?

Doctor MELVIN. Yes. Then, in the case of steam-kettle lard and open-kettle lard, we required them to differentiate on the label between the two, as to whether it was open or steam kettle.

The CHAIRMAN. What is the difference between those two lards?

Doctor MELVIN. One is cooked in an open kettle by heat applied to the kettle on the outside, and the other is cooked, as I understand, by live steam.

The CHAIRMAN. What is the difference in the process itself?

Doctor MELVIN. There is quite a difference, the open kettle being considered much the superior of the two. Then in the use of different meats in cans; for instance, in the case of potted ham, which has been quoted quite extensively, it was usual to use trimmings of meat, and to add to them some cuttings of smoked chipped beef, which would give it the smoke flavor. Now they are required, if they call it potted ham, to make it out of ham or ham trimmings—the trimmings from hams, and if it has anything else in it they can only call it “ham flavor;” if it is given the smoke flavor and not made out of ham they can only call it “potted meat, ham flavor.”

Mr. BROOKS. In the trade, can they dispose of meats that are put up that way?

Doctor MELVIN. Yes.

Mr. BROOKS. We heard a good deal last year about brawn and potted chicken. Do they still sell brawn?

Doctor MELVIN. Yes; but they do not sell so much potted chicken.

The CHAIRMAN. Brawn goes abroad, mostly, does it not?

Doctor MELVIN. I do not know where it goes. It disappears, somewhere.

The CHAIRMAN. It goes down the alimentary canal somewhere.

Doctor MELVIN. Yes. Of course potted chicken does not come strictly within the provisions of the meat-inspection law; but where chicken is mixed with other meats, the label must state the kind of meats, chicken and veal or whatever it is, pork or whatever it may be, or they may simply call it “potted meat” without any reference to the kind of meat. But if the kind of meat is specified, it must be that kind of meat only.

Mr. BROOKS. What did they do in the case of the brawn? There was a good deal said about that.

Doctor MELVIN. Brawn seems to be a general term that is used for the product, very much like the old-fashioned head cheese, and it is permitted to be used on such a product.

The CHAIRMAN. Is the word “brawn” a sufficient label?

Doctor MELVIN. We consider it so; yes, sir.

The CHAIRMAN. Though it is composed of what?

Doctor MELVIN. I think it is composed principally of head meat of hogs. It is a good deal like the old-fashioned head cheese. It has a good deal of beef in it. It has been a custom to always make it that way.

The CHAIRMAN. Was there much palming off of veal for chicken?

Doctor MELVIN. Yes, sir; I think there was.

The CHAIRMAN. Was there a mixture of chicken with it all—a certain proportion of chicken?

Doctor MELVIN. In a great deal of it there was none whatever.

Mr. CROMER. How many additional inspectors has the Department employed to carry out this law?

Doctor MELVIN. I think that I have a statement somewhere that will show that. It is about 1,200 additional.

Mr. CROMER. How many of them were veterinary surgeons and how many of them were engaged in other employment before they became inspectors?

Doctor MELVIN. The classes are not given in the statement that I have here, but I can submit that to you later, if you will permit me to.

The CHAIRMAN. Are not these men all veterinary surgeons?

Doctor MELVIN. No; a large number of them are meat inspectors.

Mr. CROMER. One thousand two hundred you have employed additional, including the meat inspectors?

Doctor MELVIN. And veterinarians and all.

The CHAIRMAN. About half and half?

Doctor MELVIN. No, sir; the larger number were the meat inspectors.

Mr. CROMER. Have you been able to get a sufficient force of meat inspectors and veterinarians through the civil-service process?

Doctor MELVIN. With reference to the meat inspectors, we have; but we had to employ some veterinarians outside of the civil service.

The CHAIRMAN. Did the President suspend the civil-service law?

Doctor MELVIN. Their regulations permit us to employ until they can furnish a list from which we can select.

Mr. CROMER. That is under the rules of the Civil Service Commission?

Doctor MELVIN. Yes.

Mr. HAUGEN. Were they temporary appointments?

Doctor MELVIN. Yes; they were temporary appointments.

Mr. CROMER. These meat inspectors are usually butchers, are they?

Doctor MELVIN. Yes, as a rule; men who have had experience in handling meats. I do not know that a very large per cent of them are butchers in the usual sense of the term, but they are men who were engaged in handling and curing and preparing meats.

Mr. SCOTT. Most of them were packing-house employees, were they not?

Doctor MELVIN. Yes; most of them.

The CHAIRMAN. What is that?

Doctor MELVIN. He said packing-house employees. My answer was not just the answer for that question. A number of them came from the packing houses, but there were, of course, men who had worked in packing houses, either large or small, at some time or other. Quite a number of them were men who had been engaged in business for themselves.

Mr. CROMER. What salary do you pay the meat inspectors?

Doctor MELVIN. One thousand dollars per annum.

Mr. CROMER. All of them receive the same salary?

Doctor MELVIN. Yes; at present. There were two experts to whom we gave additional compensation.

Mr. LEVER. Do not all these men have to be experts in some sense or other?

Doctor MELVIN. These two to whom we gave additional compensation were men whom we considered much superior to the others.

Mr. LAMB. Does Owen, in Richmond, get more than \$1,000?

Doctor MELVIN. Yes; he is a veterinarian. I think his salary is \$1,400.

Mr. LEVER. All these men are regarded as experts in their line, are they not?

Doctor MELVIN. To some extent; yes, sir.

Mr. LAMB. But they are not all veterinarians?

Doctor MELVIN. No; none of the meat inspectors are veterinarians.

Mr. HAUGEN. Has there been any increase in the salaries over last year?

Doctor MELVIN. Yes; we have given them some increase over last year.

Mr. BROOKS. Where our meats come into competition in foreign countries with meats from other countries, like Argentina and Australia, have you any data as to the effect of the inspection law? That is, has it put American meats on a higher plane, or has it worked injuriously?

Doctor MELVIN. I think that the effect of the passage of this law and its enforcement has been to remove considerable of the prejudice that had existed regarding American meats. I think there is no doubt of that fact.

The CHAIRMAN. Do you think there was any prejudice against them before this agitation last spring—more than what might be due to competition?

Doctor MELVIN. I do not think so; no, sir; not before the agitation was started.

The CHAIRMAN. Just what you might call competitive suspicion?

Doctor MELVIN. Yes.

Mr. BROOKS. Then what you mean is that the passage and enforcement of the law did away with the prejudice and uncertainty that was aroused by the agitation that led to the passage of the law?

Doctor MELVIN. Yes.

Mr. LEVER. Do you have any evidence in the way of increased exports to show that?

Doctor MELVIN. No; I do not know that we can show that by figures.

The CHAIRMAN. I think you can. The Argentine business has increased, but it is due to the law of supply and demand. The foot-and-mouth disease has been prevalent in Argentina, and that has very much curtailed their supply.

Mr. SCOTT. A report was published the first of the year that the export of American meats and meat products was greater during 1906 than during any previous year.

The CHAIRMAN. That is true. We have sent more dressed beef there than for a number of years, but that is due to the falling off of the Argentine supply, because that meat is landed there under exactly the same conditions as to inspection as heretofore; is that so?

Doctor MELVIN. Yes.

Mr. SCOTT. In October I visited one of the large packing houses in Kansas City, and there I was shown a large six-story building, standing absolutely empty, which prior to the agitation had been filled with people employed in canning meat.

Mr. LEVER. What I wanted to get at was whether this agitation

had caused any falling off in the exportation of meat and meat products.

Mr. BROOKS. It did for several months, did it not?

Doctor MELVIN. Yes; in canned goods.

The CHAIRMAN. It stopped the canned-goods business abroad; entirely stopped it?

Doctor MELVIN. Yes.

Mr. LEVER. And then, upon the passage of this law for the inspection of meat products, the trade resumed the normal, did it?

Doctor MELVIN. I do not think the canned-goods trade has regained its normal proportions at all.

The CHAIRMAN. Nowhere near it.

Mr. SCOTT. A consular report issued a few weeks ago showed that the canned-goods trade had fallen off 40 per cent.

The CHAIRMAN. Were you not in Chicago when they told us that they had an aggregate of \$10,000,000 worth of canned goods tied up that they could not stir at all—not at the Annex, but at the Auditorium Hotel?

Doctor MELVIN. Yes.

The CHAIRMAN. And all that surplus is being forced off now in the cheap quarters of the big cities at almost any price they can get. It stands there a big mountain in their way, and the sale of that was stopped by the agitation of last year. If I am not mistaken, they said that the aggregate of all the canned meat products there was \$10,000,000.

Mr. HASKINS. It was all wholesome, too.

The CHAIRMAN. Perfectly wholesome.

Mr. CROMER. About this sanitary inspection; what changes were made in these big packing houses to make their establishments sanitary under this law?

The CHAIRMAN. Do you particularly refer to water-closets?

Mr. CROMER. I am asking him what changes were made and what expense it was to the packing establishments to make their establishments comply with the regulations of the Department under this law.

Doctor MELVIN. The changes at some of the establishments amounted to almost a complete rebuilding of the former plants. There was one large firm, which has establishments in several cities, which will be unable to finish their reconstruction within three years. This reconstruction will cost them, in some instances. I was told, in the neighborhood of \$150,000. It consists in putting in materials that are more sanitary in nature, the floors being replaced with more sanitary material, providing additional ventilation and dressing rooms for their employees, toilet facilities, and things of that sort, and rearranging their sewerage system.

We had considerable trouble along that line in requiring them to remove catch basins from within the houses and put them outside the houses so as to remove odors, and to keep the odors from the tank and fertilizer department out of the other parts of the establishment. And the question of the material from which the floors and trucks shall be made is still under investigation.

We have had an expert architect, who is also quite well qualified in sanitary measures, investigating the various establishments, with an idea of formulating some general plans whereby sanitary floors and

trucks and implements and all things of that sort can be made. The packers themselves are conducting investigations along that line. They are building the floors out of different materials to see which answers the purpose the best, and it will probably be a matter of at least two years before all of these changes can be made so as to fully comply with the intent of the law. In the meantime some of the present equipment is being utilized and kept as clean as it is possible for hot water and scrubbing to make it. Many of the side walls, where blood and offal was splashed before, are either lined with galvanized iron or have been cemented for a considerable distance from the floors, and floors have been relaid.

The CHAIRMAN. You refer mostly to the old packing houses, or do you refer to them as a general proposition?

Doctor MELVIN. There were very few but what had to make some changes. As I said in the first place, some of them are being almost rebuilt from the ground up.

Mr. CROMER. Do the veterinary surgeons and meat inspectors do the sanitary inspection as well?

Doctor MELVIN. Our regular force does all of that, except this expert whom we have had out, as I mentioned, has been investigating these conditions.

The CHAIRMAN. Outside of your salaries, what are your next greatest expenses connected with your Bureau in the enforcement of this law?

Doctor MELVIN. We have some material to supply in the way of labels and stamps and certificates, and also some office rent and telephone service, and some horse hire at some stations. Those are the principal items of expense outside of salaries.

The CHAIRMAN. Will you itemize a statement of that kind up to date? The House may want to know how much is in salaries and how much in other expenses. I would like to have it furnished to the committee, if you can possibly do it. Have you got it with you?

Doctor MELVIN. No, sir; I have not, in that shape.

Mr. HASKINS. Would it not be well to have a pretty complete exhibit of that?

The CHAIRMAN. Yes; I say an itemized statement as to the salaries and printing, traveling expenses, telephones, and so forth, itemizing the whole account.

Mr. HASKINS. There will be another increased expense now, for your railroad fares.

Doctor MELVIN. Railroad fares have always been paid in the meat-inspection service. In the field work in the West free transportation was available heretofore, which now has to be paid for.

The CHAIRMAN. I see there is a proposition in the bill from the Secretary here, recommending that the Department be allowed to buy mileage books.

Doctor MELVIN. Yes; that is for the use of our inspectors in the West.

The CHAIRMAN. I suppose it would apply to all the traveling agents in the Department, in all the various bureaus?

Doctor MELVIN. Yes; probably.

The CHAIRMAN. I do not know that it is a question that ought to be put to you, but, in your opinion, would not that open a dangerous door? These mileage books are good for everybody and anybody.

Could you keep track of them? Take it in your own Bureau; could you keep track of these mileage books properly?

Doctor MELVIN. I think we could. At present they have books containing requisitions for transportation, which are issued, and they might be abused. But we never have found that they have been abused. This would enable the Department to obtain mileage at commercial rates.

The CHAIRMAN. You would have to keep track of the mileage, would you not?

Doctor MELVIN. Yes; I suppose so.

The CHAIRMAN. An inspector could take his wife and family along if he wanted to?

Doctor MELVIN. He could readily be checked up.

The CHAIRMAN. You would have to check up these mileage books of every trip you ordered an inspector to take?

Doctor MELVIN. Yes.

The CHAIRMAN. Would not that be a good deal of a labor?

Doctor MELVIN. No, sir; I do not think so.

Mr. LEVER. If you will pardon me a moment, Mr. Chairman, I want to get this clear. We will take Doctor Melvin back a little bit. We had a severe agitation last year about this meat business—the packing business. I want to ask the doctor whether or not, in his opinion, that agitation hurt seriously our export trade in meat and meat products?

Doctor MELVIN. There is no doubt but what it did for a time.

Mr. LEVER. For a time. Now I want to ask you this—if this bill prepared by this committee has had any effect whatever in restoring the confidence of our foreign buyers of meat and meat products, and are we beginning to get back on a normal basis in the export of these products?

Doctor MELVIN. Yes; I think we are, quite rapidly.

Mr. LEVER. Is it your opinion that it is the result of this bill?

Doctor MELVIN. Yes.

Mr. LEVER. Prepared by this committee?

Doctor MELVIN. Yes.

Mr. FIELD. Is there any doubt in your mind that this agitation and complaint was justly founded?

Doctor MELVIN. Some of the claims were simply ridiculous, upon the face of them—many of them.

Mr. FIELD. I know that.

Doctor MELVIN. There was some foundation for many of the complaints that were made. I think that the passage of the bill and the enforcement of the law has resulted in removing nearly all the cause for complaint.

Mr. LEVER. Did the cattle growers of the West, or the country generally, suffer any by this agitation in the reduced price of their cattle?

Doctor MELVIN. I think not. I think cattle prices have kept up about as well as they ever were.

Mr. HAUGEN. The fact of the case is that they were advancing every day—the prices of stock—during the agitation.

Mr. LEVER. Due to the agitation?

Mr. HAUGEN. No; during the agitation; not due to the agitation.

Doctor MELVIN. The demand for stock was very great during the late summer and early fall. I have been informed that when the purchase of this thin class of stock, which is usually bought for canning, was stopped by the packers within a very short time the feeders began purchasing this class of stock and the price went right back to where it was before; so that there was really no lowering of the prices of live stock.

Mr. LEVER. If it had not been for the passage of this act, is it your opinion that the price of cattle would have decreased?

Doctor MELVIN. That is pretty hard for me to determine. Of course the consumption of the country itself is becoming greater each year, with the introduction of over 1,000,000 immigrants each year, so that our home demand is replacing our export demand.

The CHAIRMAN. There never was such a consumption as within the last three or four months; and as I tell you, our export demand is made by the failure of the Argentine supply. Our beef is selling in London to-day at 10½ or 12½ to 13 cents; that is higher than it has sold for years.

Mr. LEVER. What is the occasion of the Argentine shortage?

The CHAIRMAN. They have the foot-and-mouth disease and England has a very strict quarantine against it, and we are simply enjoying the result of their misfortune. That is the plain fact of it. I do not think it is due to anything but the law of supply and demand. But the canned goods will undoubtedly be very soon restored to the place where they belonged by this bill.

Mr. BROOKS. And if we had not done something they never would have been restored.

The CHAIRMAN. That is correct.

Mr. LEVER. What I wanted to bring out was that this agitation destroyed entirely our trade in meat and meat products, and this committee, which has been so severely criticised, has passed this bill, and it is our bill which has restored it. That was the point.

Doctor MELVIN. I think that the meat that was affected by this agitation was almost entirely confined to canned meats. I do not think our fresh meat suffered at all.

Mr. HENRY. But the testimony given before this committee was a vindication of American meats aside from canned goods.

Doctor MELVIN. Yes.

Mr. HENRY. That is, as to over 90 per cent—94 per cent. It was a vindication of that class of meats.

Mr. BROOKS. The criticism existed only as to about 3 per cent of our meat products?

Mr. HENRY. The canned goods; about 6 per cent. The canned goods and sausages, and so forth.

The CHAIRMAN. Who was it who testified to that—Mr. Wilson?

Mr. BROOKS. No; it was Reynolds.

Mr. SCOTT. On the inspection service, I would like to ask a question. In going through the packing establishments in Kansas City in company with your inspector in charge there, I inquired as carefully as I could as to the way in which the law was being administered, and I found only one complaint that could be regarded as at all serious.

The packers said that the regulations required the ante-mortem examination, inspection, to be made after the cattle had gone over

the scales and entered the chutes and pens of the establishment, whereas they insisted that just as good results could be reached with much less trouble and expense to the buyers of the cattle if the inspection were permitted before the cattle had been weighed out. I would like to ask if any change has been made in that regulation, or what has been done about it?

Doctor MELVIN. There has been some change made in it, the construction of the law being that this ante-mortem inspection can not be made until the animals have been purchased for slaughter. The first interpretation of the law was that this ante-mortem inspection should only be made on the premises of the establishment where they were to be slaughtered; but the Secretary modified that to permit the inspection being made in the stock yards, but after they had been bought and weighed up to be slaughtered, the Solicitor of the Department holding that we had no control over the cattle until that time.

The CHAIRMAN. The language of the bill is this:

The Secretary of Agriculture, at his discretion, may cause to be made, by inspectors appointed for that purpose, an examination and inspection of all cattle, sheep, swine, and goats, before they shall be allowed to enter into any slaughtering, packing, meat-canning, rendering, or similar establishment, in which they are to be slaughtered, and the meat and meat-food products thereof are to be used in interstate or foreign commerce.

It says "before they shall be allowed to enter." How do you interpret that?

Doctor MELVIN. That they do not come under our jurisdiction until after they have been purchased for slaughter.

Mr. HASKINS. The question of the intention, whether they are to be used for interstate commerce, enters right there.

Doctor MELVIN. Yes.

The CHAIRMAN. What was the custom before the passage of this law?

Mr. MELVIN. They were inspected before they were weighed.

Mr. SCOTT. The wording of this law will change that; it seems to me, under the wording of that law the cattle could be inspected in the farmer's feed lots.

Mr. HASKINS. No; for the reason that they have to wait until they have been actually sold to be used in interstate commerce. That is all.

Mr. SCOTT. I did not interpret it that way.

The CHAIRMAN. I did not interpret in that way, either.

Mr. FIELD. The mere intention on the part of the owner that they should sell them to a person who would then kill them for use in interstate commerce would make them interstate cattle.

The CHAIRMAN. The way it reads is "before they shall be allowed to enter."

Mr. COX. That is permissive.

The CHAIRMAN. It is all in the discretion of the Secretary. He is not required to make an antemortem inspection; is not that true?

Doctor MELVIN. Yes. But if he does do it, I understand the point to be now that the Department can not assume jurisdiction over these cattle until they have been brought for slaughter in an establishment which is doing an interstate business.

Mr. SCOTT. That point might just as well have been raised under the old law, might it not?

Doctor MELVIN. I presume it could have been.

The CHAIRMAN. This paragraph is almost word for word that of the old law.

Mr. SCOTT. This paragraph is taken verbatim from the old law, except that it was changed sufficiently to make it discretionary with the Secretary instead of compulsory; and if it was the practice under the old law to make these antemortem examinations before the cattle were weighed out there can not be anything in this law to require a change in that respect. It must be simply a new interpretation of the old language. I think they told me, as a matter of fact, that they found as the only possible *modus vivendi* that they had to make their examinations before the cattle went onto the scales, the regulation to the contrary notwithstanding.

Mr. FIELD. I would like to ask a question for information. Is it the intention or disposition of this committee to reopen the question of upon whom the charge should be placed for the inspection?

The CHAIRMAN. The whole question is open for discussion. The subcommittee will submit the bill for the approval of the full committee. It opens the whole question to the whole committee, subject to amendment or provision.

Mr. COX. Mr. Field asked if it is the intention of the committee, so far as you know, to open up this question.

The CHAIRMAN. I do not know. That is a matter for the individuals.

Mr. HAUGEN. You have no amendments to suggest?

Doctor MELVIN. No; no more than I discussed sometime ago.

Mr. HAUGEN. You are satisfied with it as it is? I believe your reply was that you had no amendments to offer?

Doctor MELVIN. Well, I made some suggestions that I thought would be good, but there may be danger of its being destroyed rather than amended if we attempt too much.

The CHAIRMAN. I suppose that is a matter for individual action. Any member who wishes to offer an amendment can do so. You will furnish us with data of the expenditures, Doctor?

Doctor MELVIN. Yes.

The CHAIRMAN. Have you a memorandum of that?

Doctor MELVIN. Yes. Do you wish that now?

The CHAIRMAN. Oh, no; you have not it with you?

Doctor MELVIN. I think that what I have here will answer your purpose. I do not know whether it is sufficiently detailed or not.

The CHAIRMAN. Just read what you have there.

Doctor MELVIN. These are liabilities. They are not expenditures, but what we have estimated for the quarter ending December 31, 1906. For salaries, \$514,104.16. For additional compensation—that is where they are obliged to have horses and we give them additional compensation for the use of their horses—\$405. For leases—that is, rent for offices and quarters—\$1,279.49.

The CHAIRMAN. Have you had to increase your quarters at these several places?

Doctor MELVIN. Oh, yes; at a number of places.

The CHAIRMAN. To increase the floor space—the size?

Doctor MELVIN. Yes; not many. In New York we had to hire larger quarters. We did not have to do so in Chicago. But in some places where there were one or two establishments before and we had

to obtain additional quarters we have done so. At stations where there are now eight or ten establishments we would have to hire quarters that would be more accessible to all in the several places.

The CHAIRMAN. Go on.

Doctor MELVIN. Under specific authorization there is \$15,607; under general authorization, \$11,377; under requisitions for supplies, \$54,144; under informal bids—that is, for horse hire—\$1,112, making a total of \$601,330.41 for the quarter.

The CHAIRMAN. That would be two millions and a half, in round figures, for the year?

Doctor MELVIN. Yes.

The CHAIRMAN. You think, then, that the \$3,000,000 is going to be ample for you right along—that permanent appropriation?

Doctor MELVIN. I think it will. I know it will for this fiscal year, and I think it will for next year.

Mr. HAUGEN. I think last year you estimated for this year about \$2,200,000, did you not?

Doctor MELVIN. Yes; in that neighborhood. I think we now have under inspection nearly all the places that will require it. Of course I do not know; there may be some others.

The CHAIRMAN. As a matter of comparison, let the estimates there go into the record, and then furnish us with the actual expenditures under that record up to the 31st day of December.

Doctor MELVIN. I do not believe we would be able to get those for some little time yet, as the bills are coming in all the time.

The CHAIRMAN. Have not the bulk of them come in?

Doctor MELVIN. I presume so.

The CHAIRMAN. You know about your salaries?

Doctor MELVIN. Yes.

The CHAIRMAN. Do so to such limit as you can, and then on bills that are not paid give us an estimate.

Doctor MELVIN. This is the maximum. The actual expenses will be less than that.

The CHAIRMAN. Suppose that that happened to be the minimum instead of the maximum. You would have to pay your bills all the same.

Doctor MELVIN. I do not think it will be. The expenditures for the first quarter, or rather the liabilities for the first quarter, were \$304,202.

The CHAIRMAN. What do you call the first quarter—July to October?

Doctor MELVIN. July, August, and September.

The CHAIRMAN. That was all in the way of preparatory work?

Doctor MELVIN. Yes.

The CHAIRMAN. When did your salaries commence—the salaries of the veterinarians and meat inspectors?

Doctor MELVIN. The large increase did not commence until about the latter part of September. We commenced increasing along about the middle of September, and appointing these men and getting them in the service; but the increase for the second quarter was almost twice what it was for the first quarter.

The CHAIRMAN. Give us the itemized expenditure as far as you can for the second quarter—from the 1st of October to December 31. That will be pretty near a sample quarter. Not quite, but pretty

near a sample quarter. Are there any other questions that the committee wants to ask?

Mr. Cocks. Did the Doctor offer any amendment to the bill for the relief of the small packer?

The CHAIRMAN. Only one. That was in relation to the hog slaughtering of calves and lambs; and he is going to draw a little memorandum as to that for the consideration of the committee.

Statement (partially estimated) of expenses payable from the appropriation "Meat inspection, Bureau of Animal Industry, 1907." for the period October 1 to December 31, 1906.

Salaries	\$502, 587. 38
Horse hire (additional compensation for)	385. 00
Horse hire (under informal bids)	1, 432. 00
Rents of offices, etc.	4, 346. 42
Traveling expenses	13, 266. 07
Station expenses (supplies, car fare, etc.)	9, 024. 68
Telephone service	646. 45

Supplies :

Miscellaneous, office supplies, etc.	5, 522. 48
Envelopes	528. 80
Badges	1, 148. 00
Seals for marking cars, bags, etc.	3, 450. 00
Stamps, meat inspection	5, 960. 00
Tags, meat inspection	1, 311. 25
Labels, meat inspection	32, 500. 00
Lumber	567. 75
Certificates	785. 00
Furniture	1, 767. 63
Hog rings	350. 00
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	53, 890. 91

Total	585, 578. 91
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(At 3.30 o'clock p. m. the committee adjourned until to-morrow, Thursday, January 10, 1907, at 10.30 o'clock a. m.)

COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES.
Thursday, January 10, 1907.

The committee met at 11 o'clock a. m., Hon. James W. Wadsworth (chairman) in the chair.

STATEMENT OF DR. HARVEY W. WILEY, CHIEF OF THE BUREAU OF CHEMISTRY, DEPARTMENT OF AGRICULTURE.

The CHAIRMAN. Gentlemen, we have Doctor Wiley before us this morning. On page 29 of the bill you will find the estimates for the Bureau of Chemistry. Let us take up this salary roll first. I suppose, as I said to Doctor Melvin yesterday, that your modesty, Doctor, would forbid you to speak about the amount that the Secretary estimates for your salary?

Doctor WILEY. I am not so modest as not to approve it, Mr. Chairman. In that respect I am frank to say that I am a bachelor, and I do not need the money; but I believe that the office ought

to be recognized with the dignity of a salary commensurate with the importance of the work.

The CHAIRMAN. You would not think that some of the insignia would do as well as a salary?

Doctor WILEY. If you will make it a rank that carries a pension with it on retirement, I am perfectly willing to take that as a substitute. But I am not here as a mendicant, begging for the necessities of life. But after the twenty-four years of service I have given the Government, and trying to do the best I could, and especially at the present time, I doubt if there is any bureau of the Government that touches the public welfare at so many points as the Bureau of Chemistry, as it is organized under the new laws. We touch all kinds of commerce and trade and industry, all problems of sanitation, and—

Mr. HENRY. Do you use that word "touch" in the ordinary acceptance?

Doctor WILEY. No, sir; I will not use the word "touch" to-day in that acceptance. But I should like to see the salary made commensurate with the dignity of the office.

Mr. HENRY. What is the present salary?

Doctor WILEY. \$3,500. And I would be very pleased if you gentlemen would recognize that service by making the salary the equivalent of the usual high-grade bureau chiefs. That is all that I have to say. I will subscribe the \$1,500 to two worthy colleges the day you give it to me, to help education. I will promise you to do that.

The CHAIRMAN. Now, for the chief clerk of the Bureau there is an addition of \$200 to the salary.

Doctor WILEY. That comes, I think, very justly with the increased duties of the office, and to make the salaries somewhat the same, I believe all the other chief clerks in the Department get \$2,000, and mine only gets \$1,600, and I think the increase is a very just one.

Mr. SCOTT. This is a man?

Doctor WILEY. A woman.

Mr. SCOTT. How long has she been in the service?

Doctor WILEY. Ever since the Bureau was made a bureau—six years now, and before that time as a clerk for fifteen years. I think that is a very proper increase.

The CHAIRMAN. The chief clerk of the Bureau of Plant Industry gets \$2,000 and the chief clerk of Bureau of Animal Industry gets \$2,000. What does the chief clerk of the Bureau of Forestry get?

Doctor WILEY. The chief clerk of the Bureau of Soils, I believe, gets \$2,000.

The CHAIRMAN. The chief clerk of the Bureau of Forestry gets \$2,000, I believe. No; that is a submittal. That is a new thing. You say the Bureau of Soils has \$2,000?

Doctor WILEY. I think so.

The CHAIRMAN. Yes; the chief clerk there gets \$2,000.

Doctor WILEY. I would be perfectly willing to have you make it \$2,000, to make it uniform.

The CHAIRMAN. The trouble is that this question of uniformity is always up. How long did you say she has been in the employ of the Government?

Doctor WILEY. Twenty-one years.

The CHAIRMAN. How many increases has she had in that time?

Doctor WILEY. She began at about \$50 a month, I think.

The CHAIRMAN. Is there anything further that you want to say on that point?

Doctor WILEY. Nothing more on that point.

The CHAIRMAN. Now, your 4 clerks of class 2; you ask an increase of 2.

Doctor WILEY. What I have to say will be in regard to all the increases of clerical force asked for, because it is all on the same ground. This increase becomes a necessity under the new duties of the Bureau, and I am sorry to say that, having made this estimate before I had much idea of what the clerical work would be, I do not think that I have asked for enough. We want our clerks to be on the statutory roll, and when I submitted this to the Secretary I thought that would cover the increased work; but, Mr. Chairman and gentlemen, I do not think you can have any idea of what has happened since this food law was passed in the increased clerical work of the Bureau. We get an average of over 1,000 letters a day. Before this happened our correspondence was about 150 letters a day. These are all insisting on immediate answers, and some of them very knotty problems.

Mr. LAMB. You had 1,200 letters one day when I was up there.

Doctor WILEY. Yes; we have had 2,000 letters in one day.

Mr. SCOTT. How many additional clerks are you asking for in these estimates?

Doctor WILEY. We ask 7 additional clerks, I think, in this estimate.

Mr. SCOTT. Now, do I understand you to wish at this time to submit estimates for some additional clerks?

Doctor WILEY. I want to make a statement in regard to that. I want you to give me more, so that we can have them statutory positions.

Mr. SCOTT. What are these, ordinary clerks? They are not scientists?

Doctor WILEY. No; they are not scientific people. We are going to ask the civil service for a file clerk. The filing of our letters now will require an expert, somebody who has been trained in that line. But the most of this clerical force is for correspondence and clerical work of that description. For instance, take the filing of one guaranty and getting it on the books, seeing that it is all right in the first place and properly signed and acknowledged before a notary. We have four or five people working on that. There are 75,000 people in this country who will want to file a guaranty with the Secretary of Agriculture who are engaged in manufacturing and jobbing industries.

The CHAIRMAN. And all under this new law?

Doctor WILEY. All under this new law. The law requires that no dealer shall be prosecuted who can establish a guaranty—that is, if the parties from whom he bought the goods certify that they are within the jurisdiction of the law—and the regulations provide that instead of giving a guaranty with every bill he sells the manufacturer or dealer may file a general guaranty with the Secretary of Agriculture, and the Secretary of Agriculture will give a serial number, and he may print that number on the label which he puts on his

goods, and that will be accepted as an indication of who gave the guaranty. We have now waiting to be filed and adjusted perhaps 1,000 applications, and we have already acted upon 3,000 and issued serial numbers. That is an illustration of the increase in the work, and this will continue right along.

I have one other thing to say. We have an estimate here for 3 clerks at \$840 and 3 clerks at \$720. I am going to ask you if you will make that 6 clerks at \$900? I will tell you the reason why. We get certification after certification from the civil service for these clerks, and in about two-thirds of the cases the people who have been notified of their certification have refused the positions on account of the salary. They would not come at \$720; and I do not blame them, because it is quite difficult for anyone to live half decently in Washington now on \$720 a year, and I have asked you to make it instead of 3 clerks at \$840 and 3 clerks at \$720, 6 clerks at \$900, and then we will be able to get a better grade to begin with. I will ask you to very carefully consider this, because we are very anxious that all our clerks shall hold statutory positions, for more than one reason.

Mr. SCOTT. Let me ask you this question, Doctor: When a man is certified to you and does accept the \$720 salary, do you find him capable of doing the work satisfactorily?

Doctor WILEY. Very often very capable.

Mr. SCOTT. Have you succeeded in getting as many clerks as you have been authorized to employ?

Doctor WILEY. No; I am coming to that. But now we have appointed on the lump sum, since we have no other clerks, 5 clerks at \$720 in the last six weeks.

The CHAIRMAN. On the lump sum?

Doctor WILEY. Yes; for this extra work; and of that number 3 have already resigned, having secured better salaries at other places, so that we do not keep them long.

The CHAIRMAN. They got within the civil-service regulations, and then got transferred?

Doctor WILEY. No; some of them were transferred to the other Departments, but two or three resigned to go into outside work altogether.

Mr. CROMER. How would they get in the other Departments without getting in under the civil service?

Doctor WILEY. All these are civil-service appointees, every one of them. We get no other kind.

Mr. SCOTT. You find some difficulty in keeping your force up?

Doctor WILEY. We have great difficulty in keeping that grade of clerks who are efficient, and if they are not efficient we discharge them anyway, and I think it is a mistake to have these low salaries. I believe that we are the only Bureau that has that grade of clerks. I think \$900 is about the lowest that you will find in Government service elsewhere.

Mr. SCOTT. Do you often discharge clerks?

Doctor WILEY. Yes; we often refuse to make their temporary appointments permanent. We have done that in many cases.

Mr. CROMER. They are on probation?

Doctor WILEY. All are on probation for six months.

Mr. FIELD. Would not uniform salaries in the different Depart-

ments tend to prevent them leaving the Departments and seeking appointments in other Departments where salaries are larger?

Doctor WILEY. I do not know what to say about that.

The CHAIRMAN. I think it is a question of occupation. Some like one kind of work and some like another.

Doctor WILEY. I think it is a question of salary, too.

Mr. FIELD. Would not the uniformity of salaries prevent these transfers?

Doctor WILEY. Not altogether. In the Bureau of Animal Industry they needed a lot of chemists under the law, and we offered our services, and we did place our whole force at the service of the Bureau of Animal Industry for two months, just to help them to get ready to enforce that law on the 1st of October. Now, they had to have quite a lot of men, and some of my chemists who were getting \$800, \$900, and \$1,000 a year have been transferred to the Bureau of Animal Industry at salaries of \$1,200.

The CHAIRMAN. At how much salary?

Doctor WILEY. At an average of about \$1,200. There were two people who were getting only \$50 a month with us. I said: "I would not stand in your way; I want you to have this increase." These were not clerks, however; they were chemists.

Mr. COCKS. You said that there was no other place where there were such low salaries under the Government as in your Department. I see in the Bureau of Forestry there are 18 clerks at \$600 a year.

Doctor WILEY. Where is that—in the Bureau of Forestry?

Mr. COCKS. Yes.

Doctor WILEY. There may be other Departments or bureaus that have them. But my experience is that it would be better for the service to make those clerks all \$900 clerks. I think it would be better for the service. Now, Mr. Chairman, all this increase recommended for the statutory roll is for the service of the new law. We get along very well with our old work with the force that we had.

The CHAIRMAN. Right there, in view of the fact that you say that you already have some people from the lump sum to do clerical work, would you not do better to recast your statutory roll and then have us take it up and consider it?

Doctor WILEY. I have here a statement showing all of this—what we have on the lump sum and what we think we will need for the additional force. There is only one change to be made here. We want to change the name of one of the clerks to "assistant property custodian."

The CHAIRMAN. What is the increase?

Doctor WILEY. The total increase, if you add up what I have got there, will be from about \$23,000 to about \$50,000, for the statutory service.

The CHAIRMAN. You have estimates for \$41,800.

Doctor WILEY. Yes.

The CHAIRMAN. Now you increase that still further?

Doctor WILEY. Yes; up to about \$50,000. And I want to change the title of that one that I have written in pencil there.

The CHAIRMAN. Assistant property custodian?

Doctor WILEY. Yes.

The CHAIRMAN. The title should be changed to what?

Doctor WILEY. It should be changed to "assistant property custodian." He is the man who unpacks goods and puts them in the storeroom and issues them out on requisition. He is not a clerk at all. He is a very good man, and I have been informed that without that change of title he can not hold the position. He is down as a clerk, and he must be a clerk.

Mr. LEVER. You have a file clerk in the department?

Doctor WILEY. No, sir; not in the general Bureau. Our correspondence is very complicated now. That will be one of those clerks estimated for under this.

Mr. LEVER. You have a library clerk. What is a library clerk?

Doctor WILEY. That clerk has charge of the library.

Mr. LEVER. You have a separate library from the main library?

Doctor WILEY. Yes; we have a library right in our Bureau.

The CHAIRMAN. That belongs to the main library?

Doctor WILEY. Yes, sir; that belongs to the main library.

The CHAIRMAN. And you account to the librarian for the books?

Doctor WILEY. The librarian has supervision over my books.

The CHAIRMAN. You simply draw them on requisition, and hold them?

Doctor WILEY. Yes.

The CHAIRMAN. And the librarian has your receipt for them?

Doctor WILEY. Yes.

The CHAIRMAN. You are not buying your own books any more? You make a requisition on the librarian for the books?

Doctor WILEY. Yes; altogether.

Mr. SCOTT. You have nothing but technical books in this library?

Doctor WILEY. Nothing whatever; no novels. Some of the textbooks are pretty near to being novels, when you read them.

Mr. SCOTT. That can hardly be said of any that you write, I suppose?

Doctor WILEY. No; not of mine. Now, Mr. Chairman, if you are satisfied with what I have said about the statutory roll, I am ready to go on.

The CHAIRMAN. Are there any questions that any of the members want to ask?

Mr. COCKS. I would like to ask a question as to the duties of these clerks. It seems to me that in the different bureaus of the Department of Agriculture there ought not to be a discrepancy like this. Do your people do different work from that of the Bureau of Forestry?

Doctor WILEY. So far as writing and stenography is concerned, it is the same.

Mr. SCOTT. You are asking that this be made six clerks at \$900 each?

Doctor WILEY. Nine hundred dollars; yes.

Mr. COCKS. They do a different class of work from this just referred to in the Forestry Division?

Doctor WILEY. No; they are clerks that I want as stenographers and typewriters to write our letters from dictation.

Mr. SCOTT. We had information the other day that the Keep Commission had discovered that the salaries paid in the Bureau of Forestry for work of that character were less than in any other Bureau in the service.

Doctor WILEY. I believe that is true of the Forestry Service.

The CHAIRMAN. You have proposed an amendment there in that paragraph on page 30, toward the bottom, "and to establish standards therefor." Those words were stricken out of the bill last year?

Doctor WILEY. Yes; on a point of order.

The CHAIRMAN. The Senate refused to put them back.

Doctor WILEY. Yes.

The CHAIRMAN. There was a good deal of discussion on that, and there was a good deal in conference, and I think that the conference was unanimous in wanting to strike them out. Why do you want to put that in?

Doctor WILEY. I can explain that.

The CHAIRMAN. Is not that the mooted point, whether they want to give you the right to establish standards?

Doctor WILEY. I do not think that is the question. The Supreme Court has settled that. The Secretary of the Treasury was authorized to establish standards for teas, and he did so, and that case was carried to the Supreme Court on the ground that Congress could not delegate that authority, and it was unanimously held by the Supreme Court that Congress could delegate the authority. Under the appropriation act for the last five years the Secretary of Agriculture has been authorized, among other things, to establish standards of purity for food products, and under that authority he has established standards for two-thirds of all the food products in the country, and those standards have been uniformly adopted by the States. Right in the midst of his work came an objection on a point of order in the House that there was no law authorizing that, and I suppose the point was well taken. I am not a parliamentarian, but I suppose that it was well taken, and on that point of order it was thrown out of the bill. At the same time it was thrown out in the House the Senate put it all back except this one phrase.

Now you have an act of Congress that can not be executed unless the Secretary comes to some decision as to what is a standard of purity. He has got to do that, whether you authorize him to do so or not. He could not bring a suit unless he decided in his own mind what was the standard of purity.

The CHAIRMAN. The pure-food law does not in set terms authorize him to establish standards, does it?

Doctor WILEY. No, sir; but it authorizes him to bring suits in the name of the United States, or to ask the Attorney-General to do so. In order to do so he must determine that the law has been offended—that is, that the standard of the Government has not been complied with. That is the only condition on which he can bring a suit. Now we have standards already established, which will stand unless Congress repeals them, for about two-thirds of the things affected by this bill, and the other third will have to be tested by the Secretary. He will have to instruct his chemist, as he finds goods so-and-so, that they are an offense against the law. It seems to me that there is now a law authorizing this and requiring it, that it should be on the same plane of authority as the other.

A curious thing happened. The very members of the Senate who objected to this standard put into the appropriation bill a requirement for the Secretary to fix a standard for grains. Senator Hansbrough, a great friend of the pure-food bill, a strong supporter of

it, but an objector to the authority to fix standards, had put into the bill—and it was passed by Congress at the same time that the other was knocked out on the point or order—the very same thing. I say that if the Secretary has a right to fix a standard for grain, he has a right to do it for anything else, and under this bill he must do it. Whether authority is conferred in so many words, it is implied. He could not execute the law without it. I think that all ought to go on the same plane. All the States want it and are waiting for it. Every State official will say that this work ought to be completed.

The CHAIRMAN. This part of the bill about grains reads in this way:

To enable the Secretary of Agriculture to establish and maintain, at such points of export as he may deem expedient, laboratories for the purpose of examining and reporting upon the nature, quality, and condition of any sample, parcel or consignment of seed or grain, \$15,000, or so much thereof as may be necessary; and the Secretary of Agriculture is authorized to report upon such samples, parcels, or consignments from time to time, and the reports so made shall serve as a basis for the fixing of definite grades and for the issuance of certificates of inspection when requested by the consignor or consignee of any grain entering into interstate or foreign commerce.

So that it is not mandatory or obligatory on him, and it is only upon request of the consignee or consignor that certificates of inspection are to be issued.

Mr. LEVER. Could you not make this language to cover the case as it is in the grain matter—could you not make the language the same as that?

Doctor WILEY. I would be satisfied with that.

Mr. LEVER. If you could do that, it seems to me that you would meet the objection.

Doctor WILEY. I think the committee ought to know with what favor the standards fixed have been received, and what a great benefit it has been to the State service, and what a benefit it will be to the national service. It unifies the procedure in all the States, and that is a thing that all the manufacturers and most of the people want, a uniform method of judging; and every State that has had authority has adopted these standards as far as they have been fixed.

Georgia and Louisiana have adopted them, and I think Vermont in its last act has done it. Quite a large number of the States have made legislative enactments. Other States allow the commissioner of foods to make the standards, and in every case where that authority is conferred upon the commissioner he has adopted our standards, word for word; so that they have become uniform throughout the whole country; the State authorities have adopted them. New York City has adopted them, and Kansas City has adopted our standards in toto for Kansas City, and they are going everywhere. It would be a great blessing for this country if that work could be completed and the whole country could be placed upon the same basis.

The CHAIRMAN. You say that about two-thirds of the work of fixing standards has been done?

Doctor WILEY. Yes; about two-thirds of that work has been done. We have done an enormous amount of work. This committee consists of two committees, one appointed by the Association of Official Agricultural Chemists and the other by the State food officials,

which is to establish the standard for the purity of food products, which is about the same thing, only it does not carry the same authority, and these two committees are combined into one, and they are establishing standards for the States which it is hoped that the States will adopt; but of course we have not any right to establish any for the National Government, under the present wording of the law, and that is the reason that we want this restored.

The CHAIRMAN. What is the opposition to it?

Doctor WILEY. The opposition came from the whisky interest, as you will see by consulting the record of this committee for last year. That inspired the whole thing. Not in the case of Mr. Hansbrough, however. That was a constitutional point with him. But they worked very urgently before this committee last year, through Mr. Hough, to get you to rescind that authority. He made a very strenuous argument here against it, and this whole thing was inspired, as I believe—I have no positive evidence of it, and I do not know where else it came from.

The CHAIRMAN. What did they object to?

Doctor WILEY. To the Secretary of Agriculture fixing any standard for whisky. That is the long and the short of it. That is the whole source of this trouble; just right there. Now, the Secretary of Agriculture has got to make a standard for whisky before he brings a single case. He has got to fix that standard in his own mind, and he has got to instruct me and everybody else who has anything to do with the law as to his decision on that point. He has gone himself to visit the distilleries lately which make all this whisky, and he has had the people before him and has had a regular inquisition, and the object of that is in his mind to fix a standard whereby he can enforce this law. He is going to do it, anyway, and he wants the authority so that he can proclaim a standard; and all the States will adopt it.

I think it is a very just work and one that is very highly appreciated by the people of the country. It is very highly appreciated, and the people who are opposed to it, aside from those who think it is unconstitutional, are those who do not want standards of any kind. Of course, I have the greatest respect for the man who thinks that it is not right for Congress to delegate the authority. That is a different proposition. That is Senator Hansbrough's position entirely. But Congress has the right.

The CHAIRMAN. Who else would have the right?

Doctor WILEY. Congress could fix it.

The CHAIRMAN. By an absolute act in regard to each food product?

Doctor WILEY. Yes, sir. You can sit here and fix a standard for every food product, which is absolutely binding on goods in interstate commerce.

Mr. SCOTT. I think that that matter has been very energetically debated, as to whether Congress has the right to delegate the authority to fix railroad rates. Nobody questions the authority of Congress to fix railroad rates, but the authority of Congress to delegate that authority to another body is very strenuously disputed.

Doctor WILEY. I am not here to discuss that point. Somebody has got to do it. Congress has got to do it or Congress has got to delegate the authority, and the Supreme Court has held that the Secretary of the Treasury was wholly within his rights when he fixed

standards for teas. Now, you gentlemen know that you, sitting here, have not time to go into this investigation to ascertain what the correct standard is for a food. It requires a long and patient investigation of a scientific character, and each one of you would have to become a chemist to understand thoroughly all the problems connected with the manufacture of foods and their natural properties. Take the case of milk. The Secretary of Agriculture has established a standard for the fat in milk.

The CHAIRMAN. What is that standard?

Doctor WILEY. 3.25 per cent.

Mr. HENRY. That is a very low standard.

Doctor WILEY. It is too low; but we had such a tremendous force brought to bear on us to make it 3 per cent—you have no idea what pressure was brought to bear on us to do that.

Mr. HENRY. It is lower than the Massachusetts standard.

Doctor WILEY. Yes; it is lower than a good many State standards. A good many States have standards that are higher. Congress fixed the standard for the District of Columbia, and said that it should be 3.50. I think that is right. I should like to have it, myself. Now, how did they fix that standard? On the recommendations of scientific men that that was a fair standard.

Mr. LAFEAN. Was that applied to only certain seasons of the year, or to the whole year?

Doctor WILEY. No, sir; that is applied to the whole year; and it is low enough.

Mr. LAFEAN. There are certain seasons of the year when the butter fat is a little higher than at others.

Doctor WILEY. In the winter it is higher, and then when the cows get the succulent grass in the spring it is a little lower, but it never gets lower than 3.25. Now, unless Congress should pass an act fixing a standard on that, I think the Secretary should do it. I would be perfectly willing to come before you and make recommendations and say "Make that the law," if you think that is the better way to fix it.

The CHAIRMAN. Before we enter on this pure-food bill let me ask you this: Does that bill give you a great many powers that have been granted to you from year to year in these acts?

Doctor WILEY. It grants all the powers in the appropriation bill in relation to imported food products.

The CHAIRMAN. Had you not better recast that item?

Doctor WILEY. We are going to take it out altogether. Is it not marked out in this estimate?

The CHAIRMAN. It would be noted in italics if it was changed.

Doctor WILEY. No; it is in here, Mr. Chairman. All that is to be taken out. I did not know that it was here. In what I submitted to the Secretary I marked it all out.

The CHAIRMAN. Suppose that you resubmit that; submit another paragraph affecting the work that the Bureau was doing, not covered by the pure-food bill. The bulk of this is covered by the pure-food bill, and there is no use in reprinting it. It might lead to confusion.

Doctor WILEY. No; I am wrong about this. I think it is all out. That is another point altogether.

The CHAIRMAN. This reads, "to investigate the composition, adulteration, and false labeling or false branding of foods, drugs,

beverages, condiments, and ingredients," etc. That is certainly covered by the pure-food bill. That is on page 30, under the head of "Laboratory, Department of Agriculture; general expenses," etc.

Doctor WILEY. No; there is no authority granted in the pure-food bill for that purpose. The only thing we can do under that is to examine the samples taken under the act. For instance, there is no authority in the pure-food bill for this work. This should remain as it is, and also the provision for the cold-storage experiments upon the healthfulness of foods. That is not in the pure-food bill.

The CHAIRMAN. That was put in the pure-food bill, was it not?

Doctor WILEY. On page 30 it reads:

To enable the Secretary of Agriculture to investigate the character of food preservatives, coloring matters, and other substances added to foods, to determine their relation to digestion and to health.

The CHAIRMAN. Are you sure that this provision "to investigate the composition, adulteration, or false labeling or false branding of foods and drugs, beverages, condiments," and so on, is not covered in the pure-food bill?

Doctor WILEY. Not the investigation. We have to make the investigation in order to arrive at the decision. Under the pure-food bill all we can do is to arrive at that decision.

The CHAIRMAN. Further on we have the language that you have read:

To enable the Secretary of Agriculture to investigate the character of food preservatives, coloring matters, and other substances added to foods, to determine their relation to digestion and to health.

Doctor WILEY. That is not provided for in the pure-food bill. It says that the Secretary shall decide, but it does not say how he shall come to his decision, how he shall find it out. This goes ahead and says how he shall find it out.

The CHAIRMAN. How could you ascertain unless you did make experiments in this kind of work? I do not know that it does any harm to repeat it here, but unless it is necessary I believe in cutting this language as short as possible.

Doctor WILEY. I think it would be wiser to leave that in the bill. Otherwise we might have some legal complication. I do not know that we would, but we might have some legal complication in regard to our regular experimental work.

The CHAIRMAN. The proviso reads:

Provided, That before any adverse publication is made notice shall be given to the owner or manufacturer of the articles in question, who shall have the right to be heard and to introduce testimony before the Secretary of Agriculture, or his representative, either in person or by agent, concerning the suitability of such articles for food, or as to false labeling or branding.

That is absolutely pure-food legislation.

Doctor WILEY. Mr. Chairman, I told you how that got in there. For years we have never published any analysis of anything that that included without informing the manufacturer that we had made this analysis and submitting it to him and asking him for his comment, and I asked the committee a year or two ago to make that obligatory, so that nobody who might follow me who did not believe in that thing could take advantage of the manufacturer and publish that sort of thing without giving him a show. But that has nothing to do

with the enforcement of the pure-food act as an executive proceeding.

The CHAIRMAN. My idea was not to repeat in this paragraph any powers that were granted to you in this pure-food act.

Doctor WILEY. The pure-food act says that when you try a man, bring an indictment against a man for offending the law, you shall not make any publication until the court reaches a decision, so that when he is indicted you can not publish what he has been indicted for, and you can not do that until the court reaches a decision on the question.

The CHAIRMAN. Here you have a provision for something for which you have authority under the pure-food law.

Doctor WILEY. No; we have not. This is our general investigation that we must make, and the general manufacturer is protected in this.

The CHAIRMAN. Suppose we examine a man's goods under this authority and publish the result, irrespective of the pure-food law?

Doctor WILEY. We can do that, but we must give him a notice.

The CHAIRMAN. Is not that a power above and beyond the pure-food law?

Doctor WILEY. I think the object of it is to give the public a knowledge of the articles that are on the market.

The CHAIRMAN. That is the object of the pure-food law?

Doctor WILEY. Yes; but that is to punish a man for selling in interstate commerce. As I look at it, the pure-food law is to punish for a distinct offense, whereas the provision in the bill here is for an investigation, pure and simple.

The CHAIRMAN. It goes a little further than that. This provides for an investigation, but you have the power "to determine their relation to digestion and to health, and to establish the principles which should guide their use, and to publish the results of such investigations when thought advisable."

Doctor WILEY. Yes.

The CHAIRMAN. That is, of course, the club that I have always thought sufficient and that I have always believed took the place of the pure-food law.

Doctor WILEY. That club is not in the pure-food law at all.

The CHAIRMAN. Without having recourse to the pure-food law at all you can examine a man's goods, and if you find poison therein you can publish your results, under that paragraph.

Doctor WILEY. Yes, we can; but we could not do it under the pure-food law.

The CHAIRMAN. You could not do it under the pure-food law?

Doctor WILEY. No, sir; I do not think there is any authority for doing it in the pure-food law, and I think there is an inhibition against it—an implied authority against doing it.

Mr. COCKS. Do you not think that many people interested in the pure-food law and its passage did not realize the powers that the Department had under this clause?

The CHAIRMAN. Under that authority we have practically prevented the importation into this country of falsely labeled goods, injurious to health.

Doctor WILEY. But we did not do it under that authority. We did it under specific authority.

The CHAIRMAN. Was it not practically of the same kind?

Doctor WILEY. It authorized us to send back goods which did not comply with the law.

The CHAIRMAN. It authorized you to send them back. Publication under this bill would operate to exclude those goods from interstate commerce. People would not buy them.

Mr. SCOTT. My idea of the distinction between the pure-food law and the authority conveyed in this paragraph is this: Prior to the passage of the pure-food law, under the authority of this bill we could prevent the importation into this country of adulterated, impure, misbranded foods, but we could not prevent the interchange among the States of similar foods manufactured within our own borders. The pure-food law gives the same authority over interstate commerce that this formerly gave over foreign commerce, and under the pure-food law we can now prevent or punish the shipping of goods in interstate commerce which are injurious to health, which violate the provisions of the bill. Is not that about the line of the distinction?

Doctor WILEY. Yes; but it is not under this clause that we exclude them.

Mr. SCOTT. Yes; but under this clause, before the passage of the pure-food law, you might as the result of that general investigation publish the fact that certain foods were injurious to health by reason of being adulterated.

Doctor WILEY. We have done that for twenty years.

Mr. SCOTT. Yes. But those findings of yours did not have any legal effect.

Doctor WILEY. None whatever.

Mr. SCOTT. And it was simply in the way of notice to the people.

Doctor WILEY. Education; yes, sir; that is right.

The CHAIRMAN. We applied that same rule to certain seeds at the request of Mr. Trimble, of Kentucky, and he says that it has had a tremendous effect. Wherever the Department has found adulterated seeds they have published the names of the dealers of those seeds in the papers, and it has reduced the practice of adulterating seeds to the minimum, if not stopped it entirely.

Doctor WILEY. Suppose you take this out of the bill. Then our only avenue to publicity would be a court trial under the food law. We want to avoid the court trial by publicity, as far as possible, under this.

This has an additional signification which it never had before, because when the people find that their foods are wrong they know now that those who manufacture and sell them are liable to be taken before the courts, and therefore this will have an additional consequence. I think there is greater reason for this remaining just as it is now than there was before the pure-food law passed. The food law provides for no investigation or publication.

The CHAIRMAN. My only idea was that if this is the same there is no necessity in keeping it there and reprinting it year after year.

Doctor WILEY. I am of the opinion that it is very necessary.

The CHAIRMAN. I am almost convinced that this was sufficient without the pure-food law at all.

Doctor WILEY. But what corrected the trouble as to the foreign goods was not our publications.

The CHAIRMAN. No; but when you published a grocer who was selling adulterated goods he would just do it once and then his business would be ruined.

Mr. COCKS. It would not hurt them on the East Side, in New York.

Doctor WILEY. It would stop the man who was doing it innocently, but the man who was doing it knowingly and intentionally would not care.

The CHAIRMAN. That is so in all the walks of life. The man who wants to commit a crime will do it anyway, law or no law.

Doctor WILEY. Under this we can give a certificate before shipment. That is in here, and that is not in the pure-food law at all, and I hope that will remain.

The CHAIRMAN. Yes; that is very useful.

Doctor WILEY. Yes; very useful.

The CHAIRMAN. What have you done in regard to the cold storage?

Doctor WILEY. We have done a great deal and are doing still more. We have now two cold-storage houses. We have to lease them, unfortunately. There is some difficulty in controlling the conditions, but the authorities who own the storage houses have been very courteous to us.

We have placed in them different kinds of foods—fruits and milk and butter and cream and domesticated fowls and wild game. We have put in a certain quantity—a large quantity. For instance, we have about 300 quails in storage down here in Washington, and 200 spring chickens, and we have pieces of beef, and we have milk and butter and eggs, and many other things. We examine those things by cooking and tasting, and analyze everything by odor and taste when it goes in. We have a jury to pass upon everything. Then every three months we take a sample from the cold storage and we have a perfectly fresh sample of the same kind of goods, and test them together.

The CHAIRMAN. What is the temperature—above freezing?

Doctor WILEY. Sometimes it is way below freezing. It is just above the freezing point for milk and eggs. Fish and meat are frozen stiff.

The articles taken from cold storage and the fresh stuff of the same kind are treated in exactly the same way, and the jury does not know which is which, and we have them tested, and the odor and everything described by this jury, and then we have them analyzed; and we have discovered already, in the eighteen months that we have been carrying on this work, very important facts which I can indicate to you in advance of their publication. We are going to try to get a report out, if we can, at the present Congress, a preliminary report. Up to a certain point, say about three months, there seems to be no appreciable change. Eggs and milk we do not freeze. They are kept at just the freezing point, 32°. For fruits the temperature is a little above the freezing point, and for meats, fish, and game it is below freezing; they are frozen solid.

Mr. SCOTT. You say that up to three months there is no appreciable change. I would like to ask if that covers all the classes of foods that you have mentioned?

Doctor WILEY. No, sir; I am speaking particularly of the meats. Milk begins to deteriorate right away and so does cream. Eggs also begin to deteriorate immediately. Fruit is improved, and sometimes

continues to improve for three months. Meats improve up to about six or eight weeks. But after about three months for meat you can see that it has reached the maximum and then it begins to go down, I do not care how hard it is frozen.

The CHAIRMAN. Even if it is frozen solid.

Doctor WILEY. Yes, sir.

Mr. SCOTT. That is after three months?

Doctor WILEY. Yes. Action of a debasing character begins to take place. We find that meats do not taste as well and they do not smell as well, and every time the jury can pick that which has been kept over three months. Take our quail. We have quail a year old, and we have on the table cooked at the same time fresh quail. We cook them just alike, and you can distinguish between them, first by their looks, and then by smell and by taste. Every time, the jury can pick them out, blindfolded.

The CHAIRMAN. Just as you can do it with game that has been kept until it is ripe.

Doctor WILEY. This is not the ripening that you speak of in regard to game. This is not the blue, ripe taste that people like. There is no apparent change in the color of the flesh, so that when you cut it open it is not ripe in the sense that the gourmand likes a bird that must be blue and have the odor. This has no decayed odor of that kind at all. But that flesh has begun to dissolve and approach the ptomaine stage. The first step toward the formation of the ptomaine matter has been taken. It has a very much larger amount soluble in water than it had, and the taste is very much impaired, and the whole thing has deteriorated.

We are going to keep up that method of testing for perhaps two or three years until the article becomes inedible. I have one piece of meat in the thirteenth year of freezing. I fortunately got it in Cleveland.

The CHAIRMAN. It is still edible?

Doctor WILEY. No, sir; it is not.

The CHAIRMAN. Have you tried it?

Doctor WILEY. Yes, sir. I would not let my boys do more than taste it. It is full of ptomaines.

The CHAIRMAN. Have you found out yet the length of time that a piece of meat may remain in cold storage and still be good?

Doctor WILEY. We find that meat tastes and looks better after six or eight weeks in storage.

The CHAIRMAN. When does it reach the point of being entirely inedible?

Doctor WILEY. We do not know. It certainly is so at twelve years.

The CHAIRMAN. You think three months is about the limit?

Doctor WILEY. Yes; about. I have just stated that foods of all kinds, or of many kinds, improve in cold storage—fruits and meats and game improve for a certain time. Other foods, like cream and milk, begin to deteriorate from the day they are put in, and so we have to make a distinction in the analysis of foods. This, however, is not such a condition as to unfit the materials for use as food. I am a thorough believer in cold storage. This law was put in in the Senate. We did not ask for it. The object is to tell the people—and the cold-storage people in particular—how long they may safely keep their

articles of food, and I may say that legislation is waiting on the results of this work in a number of cities.

The authorities of Chicago wrote to me that they had pending an ordinance to require chickens to be drawn before they were put in storage. I told them—

We have chickens drawn and undrawn in cold storage, and we are determining which will keep the better, and I advise you not to enact this ordinance until we find out.

It may be that undrawn chickens keep better.

Mr. SCOTT. You have not determined that now?

Doctor WILEY. No. We have them that have been in since last spring. We have them taken out, once at the end of three months and once at the end of six months, and we could not see much difference up to that time between the drawn and undrawn; but the general impression is, where there is a difference, that the undrawn poultry is better. That may not come out in the end in that way.

The CHAIRMAN. Those chickens are frozen solid?

Doctor WILEY. Frozen solid.

Mr. SCOTT. Are you conducting any investigations to determine the value of canned meats after they have been held a certain time?

Doctor WILEY. No; that is not under this authority. But we might do it under the general authority above, and I think we ought to do that.

The CHAIRMAN. You surprise me by telling me that fresh fruit improves in cold storage.

Doctor WILEY. You will be surprised to put an apple in cold storage in November and see it get better and better up to April or March. It reaches its maximum and then drops very rapidly.

Mr. COCKS. Would not that be a winter apple, or an apple that under ordinary conditions would not reach its perfection before February or March?

Doctor WILEY. Of course, if an apple were perfectly ripe when it was put in cold storage it would not improve. I am speaking of an ordinary apple.

Mr. COCKS. I mean an apple such as you would put in a cellar to keep all the winter.

Doctor WILEY. A ripe apple would not improve any.

Mr. BROOKS. What I would like to get at is, is the improvement in cold storage greater than the improvement of the apple would be outside, some place, but kept in a proper place?

Doctor WILEY. The process is slower. An apple left in the open will reach its perfection more rapidly. Therefore the cold storage helps you to keep that apple in perfect condition for a longer while, and that is the principal object of cold storage.

Mr. COCKS. Have you tested any apples that you have had longer than four months?

Doctor WILEY. Yes; but they had begun to go down a little at four months. At six or eight months apples are perfectly good to eat, but they begin to lose their character and become spongy. Now, that is the character of that work, and it is extremely valuable.

Mr. COCKS. Is that true of any other fruit than apples?

Doctor WILEY. That is not true of the peach or any other fruit that ripens so quickly, but is true of pears and oranges and the like.

The CHAIRMAN. How about grape fruit?

Doctor WILEY. Yes, or anything of that kind.

The CHAIRMAN. You say that beef is better at the end of how long a time?

Doctor WILEY. From four to six weeks.

The CHAIRMAN. It is better in what respect?

Doctor WILEY. It is tenderer and has a more aromatic and pleasant taste.

The CHAIRMAN. Is it any more nutritious?

Doctor WILEY. No, sir; I do not believe so. It is a little tenderer and more easily masticated, and to that extent would be more easily digested; but aside from that I do not think it is any more nutritious.

Mr. LAFEAN. Would you, for my edification, at least, state how the grape fruit is produced, and by what mixing of other varieties?

Doctor WILEY. I am sorry, but that takes me out of my bailiwick. I am not a pomologist.

The CHAIRMAN. Mr. Galloway will tell you that.

Mr. LAFEAN. I am very much interested in the grape fruit, and what is the cause of its production?

Doctor WILEY. I like very much to be interested in it every morning at breakfast time. I am very fond of it.

Mr. HAUGEN. How long should meat be kept before being used?

Doctor WILEY. Very often it is used fresh, in the country. I have seen meat put in the pan when the muscles were still trembling. I think that meat ought to be allowed to cool, anyway, before cooking.

Mr. HAUGEN. Would it be safe after three or four or five days?

Doctor WILEY. Yes; of course.

Mr. HAUGEN. And you can keep meat a great deal longer than three weeks? I have understood that the best practice was to keep it a number of days.

Doctor WILEY. I think it improves it a little to keep it some days; perhaps from four to six weeks at a proper temperature.

Mr. SCOTT. Is there any way in which the presence of ptomaines can be detected in meat by casual examination?

Doctor WILEY. Well, no; except that if it kills you, it has ptomaines.

Mr. BROOKS. There is no way that a layman can tell?

Doctor WILEY. No, sir; that is the unfortunate thing about ptomaine poisoning. And there is the trouble about preserving meat. You attempt to preserve it and the sterilization is not always perfect, and especially in fish or oysters, which so readily develop ptomaines; their tissues break down most readily into this ptomaine poison.

Mr. SCOTT. Do ptomaines develop in other foods besides flesh?

Doctor WILEY. Yes; but not so readily. The ptomaine will develop in an egg, for instance.

Mr. SCOTT. Does it develop in a fruit or a vegetable?

Doctor WILEY. It might develop in a pea or a bean, but it would not in anything that was not rich in nitrogen. It must be very rich in nitrogen to develop ptomaines.

Mr. BROOKS. Take the fish and oysters that are shipped to the interior—they ship them constantly. What is the limit there of safety, or is there not any?

Doctor WILEY. If oysters are properly packed and kept cold and properly fed, they can be shipped for eight or ten days without danger. I took with me across the ocean a barrel of oysters, and I fed

them every day corn-meal gruel and salt, and the steward came to me and said: "I wish you would come down with me and notice those oysters. Every time I feed them I can hear them chew." And when you put your ear down to the barrel you could hear them opening their shells and closing them.

Mr. BROOKS. That is a very important point. In Colorado we are served, if we want them, Baltimore oysters.

Doctor WILEY. I believe that you can get them there in first-class condition if you keep them cool and keep them fed. They must be kept alive, of course.

Mr. BROOKS. The difficulty is not so much in the shipment, but in keeping them alive after they get there?

Doctor WILEY. I think eight or ten days is long enough to keep oysters out of the water.

The CHAIRMAN. They have in Fulton Market, in Chicago, just as fine oysters as you will get anywhere.

Doctor WILEY. Yes; they send them there in twenty-four hours in express trains.

Mr. BROOKS. Yes. They are very fine oysters.

The CHAIRMAN. The worst oysters that go out through the country are pail oysters, where they are sent up from Baltimore and other shipping points, opened.

Doctor WILEY. Yes; opened. They should not be allowed to go into interstate commerce. They are dead, and their shipment in interstate commerce ought to be prohibited.

Mr. HASKINS. How long ought they to be kept after they are opened?

Doctor WILEY. Not longer than twenty-four hours. An oyster an hour after it is opened is dead and not good. It loses its flavor. After it is opened is dead and not good. It loses its flavor.

Mr. HASKINS. Oysters shipped to the West are generally frozen.

Doctor WILEY. Oh, they ought not to be frozen. That ruins them, and as soon as they thaw they are dangerous.

Mr. COCKS. An oyster as long as he is alive is generally healthful. Often in our country, right next to the coast, we used to get a lot of oysters and pile them up in the cellar, because of the difficulty of getting them out of the water through the ice; and they improved. We would keep them all the winter.

Doctor WILEY. Yes. As long as you keep your oyster alive he is all right. But the greatest outrage in the oyster trade is to soak an oyster with fresh water so as to swell him up and make him look fat, and that is a constant practice.

Mr. HAUGEN. How about those sent out in tin cans?

Doctor WILEY. They are all right. They are very good eating.

Mr. HAUGEN. How about those in the tubs?

Doctor WILEY. I would not touch them.

Mr. HAUGEN. You would not touch those bulk oysters?

Doctor WILEY. Never. They are either preserved with some preservative or they are dangerously near the ptomaine line, one of the two.

Mr. BROOKS. A good many halibut are shipped up in bulk to New York and are carted back into the country.

Doctor WILEY. I do not know. They come here in good condition. Salmon come here from the Pacific coast frozen almost as

good as the day they are taken out of water. I am invited to a dinner soon at which we are to have salmon; there are to be shipped on here a half dozen of the finest salmon that have ever been caught, and those fish are frozen solid.

Mr. BROOKS. Will that be within your ten-day limit?

Doctor WILEY. No; that will be longer.

Mr. CROMER. I thought you said they were not as good?

Doctor WILEY. No; they are not; but there is no danger at all in that state; you can keep fish a year without any danger of ptomaines if well sterilized in cans.

Mr. SCOTT. There was a report a few years ago about a mastodon or some prehistoric animal which was found in Alaska, frozen in the ice, and it was said that the meat of that animal was chopped out and eaten by the natives. What would be your judgment about that?

Doctor WILEY. Well, I read some stories, you know, *cum grano salis*.

Mr. SCOTT. You think that story ought to be taken with a grain of salt?

Doctor WILEY. It would require a good deal of salt for me to take a piece of that mammoth. I do not believe it. When I see a piece of meat frozen thirteen years and it is not fit to eat, and then I see a mastodon frozen thirteen million years, I think that he has passed the limit.

Mr. BROOKS. He might get good again.

Doctor WILEY. Yes; he might have reformed.

The CHAIRMAN. I see you ask for \$750,000 to carry out the provisions of the pure-food law. Will you tell us just what you think the organization is going to be?

Doctor WILEY. Coming before a committee like this, I feel like a bachelor who is about to fit up a house for the first time. It is a little premature to try to tell everything you are going to do. But I will try to outline what the Secretary has indicated to me as his policy in the enforcement of this act.

As you know, the police powers of this bill are committed to the Secretary of Agriculture, while the enforcement of the bill is in the hands of the Attorney-General and the Secretary of the Treasury. The Secretary of Agriculture does all the preliminary work. Now, we have asked and have secured \$250,000 for the rest of this fiscal year. Under that authority we have immediately asked the Civil Service Commission to hold an examination for two classes of chemists, one class, the higher class, with a maximum salary of \$3,000 a year, and the younger chemists with a maximum salary of \$2,000 a year.

The object in the first place is to get men of experience of the higher class who would not like to undertake an ordinary academic examination because of their eminence in the profession, and because, for another reason, which I am free to admit is a good one, they may have forgotten a good part of their chemistry, and it would be difficult for them to write an examination successfully. Those we want to be chiefs in the different parts of the country to take charge of the laboratory work.

The CHAIRMAN. How many laboratories do you expect to establish?

Doctor WILEY. We hope to increase the efficiency of the inspection

of imported foods by establishing laboratories at Buffalo, Detroit, St. Paul, along the Canadian line, for the control of our Canadian importations, which we have not tried to control at all as yet; and then we want another either at Charleston or Jacksonville, on the Atlantic coast—not at Baltimore, because we can control that from here. We have Boston, New York, and Philadelphia, and we want one other, either at Charleston or Jacksonville.

The CHAIRMAN. You have one at New Orleans?

Doctor WILEY. We have one at New Orleans and hope to have one in Texas, at Galveston. Then, passing up the Pacific coast, we have our laboratory in San Francisco, which, by the way, was destroyed, and we lost \$5,000 worth of goods there.

The CHAIRMAN. We increased that for you last year.

Doctor WILEY. Yes; and we are replacing it. We have no place of our own there now. We are guests of the university authorities, in quarters given to us by them, now. Then we want a laboratory at Portland, Oreg. For the interior we want one at St. Louis, and probably one at Denver. Those are ports where a great deal of goods come.

The CHAIRMAN. You have one at Chicago now?

Doctor WILEY. Yes.

Mr. BROOKS. You said Denver?

Doctor WILEY. Yes. That is the plan for increasing the inspection of the imported articles. These laboratories would also be utilized for interstate work where necessary.

The CHAIRMAN. You do not propose to establish another laboratory under this bill where you have a laboratory already?

Doctor WILEY. No, sir; certainly not. Now, as regards the other work, we hope not to be under the necessity of establishing any laboratories at all, because the Secretary, under the authority of the food law, which says that he shall, or may, collaborate with the State officials, is going to make an effort to get into collaboration with the State officials of every State in charge of foods and drugs, with the purpose of utilizing their chemists and laboratories at fair compensation, thus bringing them into close touch with our work.

It so happens that in almost every State when the official begins the investigation he finds in the end that it is something that came from out of the State, and we can collaborate with them in their work and they can collaborate with us in our work and thus diminish the expense, and to that end we have sent to every State official a copy of the article on the examination issued yesterday by the Civil Service Commission, and suggested to this official if it is not interfering with his work to have his people, as many as he would like, take this examination, so that under it they may be appointed agents under our law and collaborate with us, and we pay them in accordance with the work they do for us. We think that will diminish the expense and be very advantageous otherwise.

The CHAIRMAN. Adding to their State salaries?

Doctor WILEY. Well, as far as they will permit it, or want it. I have talked with a number of the State officials, and they say that it will help them wonderfully in their own work, and they can increase their force in their own work by our paying them for what they do for us.

Mr. BROOKS. That is only in the States where they have pure-food laws?

Doctor WILEY. Yes; only in the States where they have pure-food laws.

The CHAIRMAN. How many of the States have them?

Doctor WILEY. Almost every one.

Mr. BROOKS. One more question. Have you any data as to the comparative State pure-food laws? What I am getting at is this: Suppose one was interested in the enactment of new pure-food legislation. Is there anywhere where one can get a compilation of the State pure-food laws?

Doctor WILEY. We have made that already. We have it up to the 1st of July.

The CHAIRMAN. These standards would tend to make all the States alike?

Doctor WILEY. That would be the great work of the standards, and a large number of the States are introducing amendments to their laws substituting the definitions of adulterations in this law, so as to make it uniform. Only yesterday there was introduced in the legislature of Indiana a bill to that effect. A bill is drawn and is ready to go into the legislature of Illinois to that effect. Vermont has already adopted our definitions. A number of Western States have adopted them. The legislature of Louisiana and the legislature of Georgia have adopted them. You see it is going all over. There is a universal movement toward uniformity of law and definitions. Now if we add to that the perfect uniformity of standards, we will have an end of all this confusion, which heretofore has been the cause of so much trouble to manufacturers where every State had a different definition and a different law and a different method of procedure; so that when a manufacturer had made his goods so that they suited one State and sent them into another State they would be illegal.

That will all be done away with, and I think that in eight or ten years there will not be a State which will not have uniform laws with all the rest. Mr. Slayden, of Texas, sent his secretary to me yesterday and said: "Let me have a draft of a law," and I sent him a copy of one that had been introduced in Indiana just the day before.

Mr. BROOKS. Would you let me have that?

Doctor WILEY. I would be very pleased to. Texas has no law, and is starting to adopt these definitions.

Mr. LAFEAN. Has Pennsylvania done anything in the way of the adoption of a pure-food law?

Doctor WILEY. Yes; and its definitions are word for word those of our law. We do not care about the methods of enforcement, but the definitions should be uniform everywhere.

Mr. COLE. How about the law of Ohio; does it differ from the national law?

Doctor WILEY. It is quite different. It was enacted years ago; but I hope that the legislature of Ohio will take steps early to change that law and make it uniform with the national act.

Mr. DAVIS. Some years ago the State of Minnesota had some difficulty about the pure-food law. Do you know what that difficulty is?

Doctor WILEY. I know a good deal about it. Mr. Slater up there is bringing everything into harmony with our law. By the way, Iowa has adopted our law by legislative enactment. New York City has adopted it, and so has Kansas City.

Mr. HAUGEN. How did Iowa get that law?

Doctor WILEY. They have made a new one. That is, they have not changed the methods of enforcing the law, but they have changed the definitions.

Mr. HAUGEN. By an act of the legislature?

Doctor WILEY. Yes; I think so. Now, we want a large part of this money for the States. We think we would like to spend an average of \$10,000 in each State, of this sum. The Secretary and I talked it over, and we think that would be a pretty fair start. Some of the States will not require that much, but some will, and quite a number of them will want more, and we think an average or \$10,000 will be right, making \$460,000, the sum that we ask for.

The CHAIRMAN. Take a State as an example, and tell us how you propose to organize it; take any State that you have in your own mind.

Doctor WILEY. Let me take the State of Indiana, which is the one that I am best acquainted with, being a native of that State.

The CHAIRMAN. Very well.

Doctor WILEY. Our idea would be to have Mr. Barnard, the chief chemist in Indiana, take this examination. He is perfectly competent to do this, and we would like to have anybody else who is an executive officer who would like to have it take the examination.

The CHAIRMAN. Who is Mr. Barnard?

Doctor WILEY. He is the State chemist of Indiana and does the work in the execution of the State law. Let him qualify, and then we will pay him \$8 or \$10 a day for the time that he works for us; we will arrange with the State authorities to let him do so. We say to Mr. Barnard, "Here is a case that we want you to examine. You make this examination for us." He will work three or four days for us, and then he will send in a monthly bill stating the time that he has worked. In that way I expect to get in touch with every State.

The CHAIRMAN. You think it would be preferable to pay him by the day for the work done, or a stated salary by the year?

Doctor WILEY. No; by the day. We could not pay a stated salary for the year unless we took his whole time.

The CHAIRMAN. How much would you pay him?

Doctor WILEY. I would pay a man like Barnard \$10 a day.

The CHAIRMAN. For the entire day?

Doctor WILEY. The entire day. He would make a statement of the number of days that he worked. He is a man of high character. Some others I would pay \$5 or \$6. If I could get a man like Winton, of Connecticut, I would be willing to pay him \$20 a day, and he would earn every cent of it.

We have asked, also, for an examination of inspectors. We want to put at least one man on our roll permanently from each State. Two from some States, but we want at least one. We want that man to be a wide-awake business man. The call for the examination says that he is not required to be a chemist or a lawyer. A man who has been a salesman or a dealer would be useful. We have fixed the age

limit at 40 years. We do not want any of the old chaps in that work, because those men will be on the road.

The CHAIRMAN. Those are among the most important positions that you have to fill?

Doctor WILEY. Yes; and we want to be careful about these examinations.

The CHAIRMAN. What kind of an examination do you propose to have that man pass?

Doctor WILEY. We propose to have him pass an examination showing that he is a good English scholar. He has to pass an examination that would fit him for a clerkship, to begin with, and then he has to make a statement of his experience in handling foods and drugs, and to give his references, and we count that as half of the examination and the written part as the other.

The CHAIRMAN. It ought to count three-quarters.

Doctor WILEY. Yes; but the civil service has its own ideas about that, and we have to yield.

Mr. LAMB. How would a man of the style of the one I carried up to you the other morning do?

Doctor WILEY. A first-class man. A keen, wide-awake man, and fit for that purpose. Why do you not have him take the examination?

Mr. CROMER. How much do you propose to pay these men?

Doctor WILEY. Two thousand dollars for the higher grades, and the lower grades in the service to be paid accordingly, and expenses.

Mr. CROMER. How much do you estimate it will cost?

Doctor WILEY. About \$5,000 a year for each man.

The CHAIRMAN. They ought to be the highest type of men you can get.

Doctor WILEY. Yes; we are going to try to get the best men. The ideal man is a keen salesman. Those men must know where to look for these adulterated and misbranded goods and where to find them. We must have the evidence of these cases, and they must get it. We have got to prove that this man made those goods and that they were shipped by him, and identify them right at the start. We finally find a man whom we know is violating this law. We put that inspector on his track and we say: "You trace these goods."

The CHAIRMAN. How much does a post-office inspector get?

Doctor WILEY. I do not know.

Mr. CROMER. They get a per diem?

The CHAIRMAN. No; they get a salary.

Mr. CROMER. They get a salary and then a per diem allowance of \$4 a day. They get from \$1,400 to \$1,800 and \$2,000. They are graded.

Doctor WILEY. Now, we have suggested that it would be proper to appoint to each State men who are citizens of that State for inspectors. I do not know whether we can do that or not, but we want to do it. For New York we want a New York man, and for Pennsylvania we want a Pennsylvania man, if it is legal. That is the question.

The CHAIRMAN. You are going to have some difficulty in getting the right kind of men for those positions.

Doctor WILEY. We are not going to appoint a man unless we are sure he is the right kind of a man, and from the references that we

get as to his character we will establish that he is an honest and reliable man.

Mr. DAVIS. Who are these men you are speaking of?

Doctor WILEY. The food and drug inspectors.

Mr. LAMB. The Congressmen can select them for you.

Doctor WILEY. The civil service would say "nay." The Congressmen ought to select the men to take the examination. That is what I mean. If we could get an inspector such as Doctor Warren has in Pennsylvania, that would be ideal. He has never lost a case on an unidentified sample.

Mr. DAVIS. Do you not think that the Congressman as a rule knows and is better qualified to judge of the honesty, integrity, and business character of a man than the Civil Service Commission through a civil-service examination?

Mr. COCKS. If I was counsel, I would object to that question.

Doctor WILEY. I am and always have been an ardent civil-service reformer, and I do not like to answer that question. I will say that under the civil service as a rule we get better material than under the old system.

The CHAIRMAN. What do you propose to pay these inspectors?

Doctor WILEY. I think for the highest grade \$2,000, and for the lower grades in the service just the way it is worded, so that we can pay a first-class man \$2,000.

Mr. HAUGEN. And his actual expenses?

Doctor WILEY. Yes; and actual expenses; not a per diem, but actual expenses. We estimate that all this is going to cost us about \$250,000 a year.

Mr. CROMER. That is a little higher than the inspectors sent out by the other Departments.

Doctor WILEY. We want a very much higher grade of inspectors if we can get them, because our whole superstructure must rest on that substratum.

The CHAIRMAN. The salaries of the post-office inspectors run from \$1,200 to \$3,000.

Doctor WILEY. Our one inspector in charge is the \$3,000 man.

Mr. COLE. Do you expect to adhere strictly to the age limit of 40 years?

Doctor WILEY. No, sir; there may be cases where it is advisable to waive that point.

Mr. CROMER. You will not confine it, then, to that age?

Doctor WILEY. No; but the civil-service rules may.

Mr. DAVIS. Do you think that you can fix that with the Civil Service Commission so that they will waive that?

Doctor WILEY. Yes. The Secretary has taken it up with them, and they may change that wording and make a higher limit; but we want to get young men for this work.

Mr. COLE. When will these examinations be held?

Doctor WILEY. They will be held right away; just as soon as the legal limit of the notice expires.

Mr. CROMER. We have not received the notice yet.

Doctor WILEY. It has been published.

Mr. CROMER. I do not think that I have received the notice.

Doctor WILEY. I got the notice yesterday—the printed notice.

The CHAIRMAN. Let us get back to the bill. You have estimated for that \$250,000.

Doctor WILEY. Yes.

The CHAIRMAN. That is for the chief inspector and for all the force in all the States?

Doctor WILEY. Yes. That brings the total up to about \$600,000 or a little over.

The CHAIRMAN. Take the State of Indiana, how many inspectors would you appoint for that State?

Doctor WILEY. Only one, and two or three for New York. New York City would have to have one alone, and there would have to be at least two outside New York City, in the State. That would make three for New York.

The CHAIRMAN. How many would you appoint in Ohio?

Doctor WILEY. Probably two.

The CHAIRMAN. At Cincinnati and Cleveland?

Doctor WILEY. For Delaware and Maryland, one.

The CHAIRMAN. For the two States?

Doctor WILEY. For the two States.

The CHAIRMAN. For Rhode Island and Connecticut?

Doctor WILEY. One; and one for Massachusetts, and probably one for Maine, on account of its large area.

The CHAIRMAN. There is not much manufacture of canned goods in Maine, is there?

Doctor WILEY. There is a lot of it. There is one duty of those inspectors that I forgot to speak about, and it is very important. The law provides that no filthy, putrid, or decomposed animal or vegetable substance shall enter into the composition of foods, and now we propose to send these inspectors without notice to the big factories and see the character of the raw material they are using. That will be one of their principal duties.

The CHAIRMAN. Will you examine under that law the apple evaporators?

Doctor WILEY. Yes; and see what they do with their cores and skins. This inspector is to examine soup factories. He is to see that the chickens are not so old as to have been bred by Noah. That is one of the important duties of those inspectors. We have had one man working as a special agent on that this summer, just to try how the thing would work. He has inspected 45 or 50 factories, and we have gotten a lot of most interesting and useful information.

The CHAIRMAN. Did you find the conditions bad?

Doctor WILEY. Sometimes bad and sometimes excellent, and then again in all intermediate ways.

The CHAIRMAN. What percentage is bad?

Doctor WILEY. 5 or 10 per cent, maybe, and from 25 to 30 per cent excellent, and the others intermediate grades. But the knowledge that such a man is going to drop in on these people at any time without notice will do a wonderful work in bringing up the general scale.

The CHAIRMAN. I have always contended that a knowledge of the law is all the power that you needed. That is what I have claimed from the beginning.

Mr. SCOTT. I presume this man is instructed, or at least is authorized, when he finds a factory below grade to inform the proprietors of that fact?

Doctor WILEY. Yes; to inform the Secretary, and the Secretary will say to the proprietors, "If you do not clean up I will not let your goods go into interstate commerce."

The CHAIRMAN. Have you a sanitary clause in your bill, as we have in the meat-inspection law?

Doctor WILEY. Yes; absolutely. He will say to them, "You clean up your establishment, or I will put the ban on every part of your goods that goes out of your establishment for interstate commerce," which he can do. Take gelatin. That is most important. Have you any idea how the gelatin that you eat is made?

The CHAIRMAN. No.

Doctor WILEY. We have found out.

The CHAIRMAN. It is made of skins and bones.

Doctor WILEY. Yes; and it is made out of the hides—out of the scrapings off of the hides. These hides go into the tanner's vats, and these hides that smell to heaven are treated and trimmed, and these trimmings are used to make gelatin. The Marine-Hospital Service found tetanus germs in gelatin.

The CHAIRMAN. What kind of factories are they?

Doctor WILEY. The dirtiest in the world. They treat those hides with alkali, rub it into the hides for shipment, and then they are scraped and trimmed, and then they put the hides into the tanner's vats and use the residue for gelatin. They make this gelatin sometimes in glue factories. What is not fit for glue is made into gelatin.

Mr. LAFEAN. You say what is not fit for glue is made into gelatin?

Doctor WILEY. Yes, sir; what is not strong enough for glue they make into gelatin.

Mr. HAUGEN. What is it used for?

Doctor WILEY. It is used for putting into ice cream and putting into candies and for making capsules that you take your medicine in. There is no objection to gelatin if it is properly made, and it is good and wholesome, and there is plenty of wholesome raw material to make it of.

Mr. HENRY. It is made of hoofs?

Doctor WILEY. It is made of hoofs and horns and bones. There is no objection to making it of bones, if they are fresh.

Mr. SCOTT. I presume that the product that you speak of as containing live germs of various kinds must constitute a very inconsiderable proportion on the market.

Doctor WILEY. No one wants to run the risk of getting lockjaw by taking a powder or a pill or eating ice cream.

Mr. SCOTT. That must be the cause of so many children being made sick by eating Sunday school ice cream.

Doctor WILEY. Ice cream! It is the most wonderful thing in the world—this ice-cream proposition. About three months ago, when the schools first opened, these hoky-poky men were pushing their carts around, and at the noon recess there was one of them came up on the street across from my office and I sent out and bought two blocks of this ice cream, a yellow one and a green one. Of course both were poisonous with coal-tar dyes. There was not much cream in them. We examined those two bricks, and one had 12,000,000

germs per cubic centimeter and the other had 13,000,000 per cubic centimeter.

Mr. COCKS. How many germs would there be in a good ice cream?

Doctor WILEY. Not over ten or twenty thousand per cubic centimeter.

Mr. COCKS. What kind of germs did you find in this hoky-poky?

Doctor WILEY. We found the colon bacillus, which is allied to typhoid bacillus. When you find the colon bacillus, you always may expect the typhoid bacillus with it. And there are ice cream factories not 1,000 miles from here which if you should go into you would never eat any more ice cream as long as you live.

Mr. COCKS. Do you eat ice cream, yourself?

Doctor WILEY. Yes; but we make it for the boys over there out of pure cream.

Mr. FIELD. You say there are about 20,000 germs per cubic centimeter in the best of it?

Doctor WILEY. In the best that is made there would be about 20,000 or less per cubic centimeter.

Mr. FIELD. Is not that enough to kill?

Doctor WILEY. Oh, they are perfectly harmless, those germs. It is only when you get this terrible infection that it does any harm. The sterilization of milk is a great mistake, if it is pure, because these natural germs aid digestion. But when you get 12,000,000 of them they do not all come from the milk.

The CHAIRMAN. How about this inspector? What would he do?

Doctor WILEY. I would have him do all the time just what this man has been doing within this past year. I would have him go from factory to factory where they are making food products. When Barnard or any of the other food officials notified him that they had found food coming from a certain State that was not all right, I would have him go there and follow it up.

The CHAIRMAN. To another State?

Doctor WILEY. Yes; I would not confine him to one State.

The CHAIRMAN. You would not communicate that fact to the inspector of that State?

Doctor WILEY. Yes; I would have them meet there and collaborate. I would want the inspector from that State to go, because the suit must be brought and the trial must be had there, and he probably would be wanted to give evidence, and I would trace the package across the State line and find where this sample originated and take that package to the place. We might find it all wrong, but otherwise without this investigation we could not identify it.

The CHAIRMAN. What else would he do?

Doctor WILEY. In addition to that—in addition to the inspection of the factories and the tracing of packages—he would exercise a general supervision. I do not know that there is anything else he could do except those two things.

The CHAIRMAN. He would be simply on the road all the time, inspecting factories?

Doctor WILEY. Yes; on the road and busy all the time. We will keep him busy. He will have plenty to do, as you will easily see when you think of all the vast interests involved.

The CHAIRMAN. He will have about a year of this work, and then things will be a great deal better?

Doctor WILEY. I do not know. I think there will be a great improvement. I agree with you.

The CHAIRMAN. All I want to avoid in this is what you might call the overmanning of this Bureau, because I think in a year or two things will improve very much. As a commercial proposition men will not take the chances—they will not continue abuses and violations of the law.

Doctor WILEY. In that case we can diminish the force.

The CHAIRMAN. The whole thing is a business proposition, eliminating these practices and improving the morals of the community.

Doctor WILEY. Yes. There is \$150,000 now that I have not accounted for. We will have to have some increase of our chemical force to man these laboratories that I have been speaking of.

Mr. BROOKS. And new clerks?

Doctor WILEY. And new clerks. I count 50 or 60 men for these new laboratories, and each laboratory will have to have a clerk. They can not get along without it, and they will have to be equipped. In most cases we have no rent to pay. We get a Government building or a State building. In Minnesota they have offered us a large part of the old statehouse, right opposite the State laboratory.

Mr. BROOKS. What is that clerk to do?

Doctor WILEY. He has reports to write very day. Every chemist has to report every day.

The CHAIRMAN. Could he not write his own reports?

Doctor WILEY. He could not. He could not do any chemical work if he did.

The CHAIRMAN. He would have to take the time to dictate them to his clerk.

Doctor WILEY. Yes. Now, making out the blanks, and so forth, takes a man all his time, and in New York City it takes three clerks to do it. We are going to have 30 chemists there. We have 10 now, and we have new rooms there three times as large as we have now, and we are fitting them up so as to control that vast body of trade in that city. We will have but very few men here in Washington in addition to those we have, probably a dozen—that is, chemists. These items will take up \$100,000.

Now, \$50,000 we have estimated for the services of experts. We have employed one expert. That is the first employment we have made under this bill. There is question, and very serious question, about the classification of phenacetin as a derivative of acetanilid. If phenacetin is so derived, it has got to be labeled on every package as it is found.

The makers have protested that it is not a derivative of acetanilid, and they employed eminent chemists who testified to that, and it became necessary for us to employ eminent chemists, and we went to the University of Chicago and employed Doctor Nef, one of the most eminent chemists in this country. We think we are right, but we need the most eminent authority. We went to Doctor Nef, and he said "Yes; I will do it for \$500." So I have drawn up an authority of that, so that he may advise the Secretary on this matter of phenacetin.

The CHAIRMAN. Do you consider that phenacetin is more or less dangerous than acetanilid?

Doctor WILEY. It is a little less dangerous, but it has the same depressant effect. I saw this morning an account of somebody in Cumberland, Md., having taken a dose of it, and it killed him. He had a headache and he took the powder, and he died from it. Captain Lamb had a constituent in my office yesterday on this very question.

Now, this is something that we have to regulate, and we want to get right on it. We will have a lot of this work of just that character, and we want the best men that we can get. We can not tell how much that will cost, but we want \$50,000 at least for those extra emergencies. Now, I have tried to tell you what the Secretary and I have agreed upon as the best way of getting at it. There is an immense amount of detail that I could not give you. We are going to avoid all overmanning and avoid all annoyance to trade and give every man a show for his white alley. If we find a man wrong, we will call him up and give him a fatherly talk and spank and let him go, and if he will not go right we will have to put the law on him.

The CHAIRMAN. Now, you have no increase except this \$750,000 in the lump-sum provision.

Doctor WILEY. That is for the law. We do not ask for any increase for our Bureau. If you will give us the same as you did last year we will be all right. I am not saying much about the general work because I have gone over it so often before this committee, but it is growing. The work of all the Departments is growing. Our investigations, which are very important to agriculture, are growing. If you give us the same as you did last year we will not ask for a penny more.

Mr. SCOTT. Have you any lawsuits growing out of the law as yet?

Doctor WILEY. No, sir; we have no inspectors and no way to bring a lawsuit.

Mr. CROMER. You have had one man out?

Doctor WILEY. Yes; but that was simply to see what we could do. It was experimental.

Mr. CROMER. To see if you could find anything?

Doctor WILEY. To see what we would do with an inspector. We wanted to make a trial.

Mr. SCOTT. The law went into effect on the 1st of January?

Doctor WILEY. Yes; on the 1st of January.

Mr. COCKS. Do you have anything to do with the subject of fertilizers?

Doctor WILEY. No, sir; we have a lot of fertilizer work referred to us from the State authorities, and sometimes the merchants get into a dispute and refer to us.

Mr. COCKS. How about the Department here? They have nothing to do with that, the Department of Agriculture?

Doctor WILEY. No, sir; nothing.

Mr. COCKS. I would like to ask you if you think there is any necessity for an amendment to the interstate law relative to fertilizers, to comply with the State laws on the same lines that you have been talking about now. You know the States have laws regarding the branding of fertilizers.

Doctor WILEY. That matter has been discussed a great deal in our Association of Official Agricultural Chemists, and I have been chairman of the committee on legislation of that association for

ten years, and we have had that question up all the time, and we have conferred with the manufacturers, and they have now appointed a committee, and we have voted that at the next session of that association, which will be this year, in the fall, we shall bring a draft of a measure to aid the States in their control of fertilizers, but we did not want to do it while this other legislation was pending. We did not want to complicate matters, and we wanted to have the State authorities agree to it and all the manufacturers agree to it. That is our object.

Mr. COCKS. I was going to introduce a bill, because it is very important to the States.

Doctor WILEY. It would do no harm to introduce a bill.

The CHAIRMAN. The idea is to have uniformity.

Mr. COCKS. We can handle it in New York City, but we can not handle it until it gets in there.

Doctor WILEY. Every fertilizer manufacturer in this country now has got to have 46 different kinds of brands—one for Virginia, and another for West Virginia, and another for Maryland, and so on for every State—and it is a regular museum to go in there and see the labels that they have to keep, and all for the same kind of fertilizer.

Mr. CROMER. You have not elaborated on the question of whiskies yet this morning.

Doctor WILEY. I will say just two words in answer to the gentleman from Indiana. The question of whiskies is very important just now. The Secretary ruled that a mixture of neutral spirits and whisky is not a blended whisky, but that it is a mixture or blend of spirits and whisky.

The CHAIRMAN. Neutral spirits is not whisky?

Doctor WILEY. No, sir. It has no color.

Mr. LAFEAN. How about high wines?

Doctor WILEY. "High wines" is different. This is a trade name for distilled spirits of a strength greater than proof. If you dilute high wines, which contain all the constituents of whisky, it becomes whisky. If you pass high wines through charcoal to deodorize the product, and then through a column which takes out all the characteristics of whisky and leaves only neutral ethyl alcohol, you have pure, or Cologne, spirits. But the pure spirit has none of those qualities which you find in whisky. They are all taken out. The straight distillers agree with the Secretary on his decision, and all the blenders disagree with him.

Mr. HENRY. How does Mr. Hough stand on this?

Doctor WILEY. Mr. Hough is slightly opposed to the Secretary's ruling. The Secretary has gone into this matter personally of late. I have gone with him through Indiana and Illinois; we have gone to the places where they make these spirits and whiskies. We went to Terre Haute and visited the great distilleries there, also to Peoria, and around Pittsburg.

Mr. CROMER. What per cent of the whiskies are pure?

Doctor WILEY. In this country?

Mr. CROMER. Yes.

Doctor WILEY. As sold over the bar?

Mr. CROMER. Yes.

Doctor WILEY. None. I even find that the famous bottled in bond

is adulterated. The saloon keeper buys one case of it, and then fills it up from his demijohn in the cellar.

Mr. COCKS. You still claim the bottled-in-bond whisky is pure whisky?

Doctor WILEY. Yes; it is nothing but whisky when not tampered with.

Mr. COCKS. What is the adulterated whisky that is sold as pure whisky?

Doctor WILEY. Mostly neutral alcohol.

Mr. COCKS. What is your definition of whisky?

Doctor WILEY. It is a distillate from the fermented mash of malt, or of cereals, the starch of which has been hydrolyzed by malt, and it contains all the congeneric products formed with ethyl alcohol during the fermentation that are volatile at the ordinary temperatures of distillation.

Mr. COCKS. We are under great obligations to you, Doctor.

Doctor WILEY. Gentlemen, I am very glad that I have satisfied you.

The CHAIRMAN. I think that every bottle of it ought to be so labeled.

Mr. DAVIS. The definition of the Doctor is so simple concerning straight whisky that I would like to know his definition of a blended whisky.

Doctor WILEY. Blended is not the antithesis of straight. "Crooked" is the term you mean. If one is straight, the other is crooked. Crooked whisky is not whisky at all, but is made of neutral spirits, and flavored and colored. It is an imitation. It has none of those aromatic and flavoring congeneric products which are volatile at the ordinary temperature of distillation. I think that pure spirits is a poison, pure and simple. It coagulates the protoplasm in the cells.

The CHAIRMAN. You mean pure spirits?

Doctor WILEY. Yes; alcohol. As long as any man can keep his cells limpid and keep his protoplasm limpid he will never grow old.

Alcohol absolutely coagulates protoplasm the moment it touches it, but the alcohol that is in a whisky or brandy or rum is so mingled by nature's operations that it is an entirely different proposition. For instance, you take ordinary field corn and put sugar on it, more than sweet corn has, and it does not taste like sweet corn. It is not sweet corn. Nature has a way of combining the elements in foods which man can not imitate, and therefore when nature produces 20 different substances, as she does every time a whisky is fermented, and all 20 of them come over in the still, alcohol among them, then you put these natural elements away to become mellow, to marry (as the distiller says), which takes years to accomplish—it is a long-drawn-out ceremony—and you make a beverage which is tonic and wholesome and healthful and nonpoisonous; and there is all the difference in the world between a drink of straight alcohol and a drink of whisky, brandy, or rum.

I made an experiment which was more convincing than I had expected. I took a 12-year-old whisky that was mellow and rich and fragrant and I put it in a still and distilled half of it over, and I was careful to lose nothing, and I poured it back in the bottle, and I had chemically the same thing as before I redistilled it, and that whisky was not fit to drink. A divorce had taken place, and it would take

another twelve years to make another marriage. You can make alcohol from whisky by separating from it these bodies other than alcohol.

Mr. HAUGEN. What do you call those other substances?

Doctor WILEY. They are propyl, butyl, and ornyl alcohol ethers, and ethers of many kinds, and different kinds of aldehydes and acids and furfural. Do you want me to name all of them?

Mr. HAUGEN. No, no.

Mr. SCOTT. Can you tell us what is the relative cost of producing pure whisky and alcohol?

Doctor WILEY. Yes; you can get it in any trade circular for the whisky which is just as it comes from the still. For instance, at Pittsburg the raw whiskies are selling at 47 cents a gallon, tax unpaid, and the spirits at 19 cents, tax unpaid.

Mr. SCOTT. The cost of the alcohol is less than half that of the whisky?

Doctor WILEY. Yes; the cost of the alcohol is less than half that of the good whisky.

Mr. SCOTT. Are any of these whiskies pure when they are sold from the still?

Doctor WILEY. The raw whiskies?

Mr. SCOTT. Before the change takes place, when they are sold.

Doctor WILEY. The raw whiskies are not fit to drink; they are not married. It takes them at least four years, and better eight years, in wood. And meanwhile leakage and storage increase the expense, and at the end of eight years that whisky is worth many times over what it was when it was first distilled. On the other hand, spirits are never so good as the day they are made. The minute you put spirits in a barrel they begin to degenerate.

Nearly all the whisky is sold as soon as it is made, often before. It is sold to the people who handle it, the jobbers. The distiller very rarely owns his whisky.

Mr. SCOTT. And they are the ones who adulterate it?

Doctor WILEY. No, sir; the rectifiers are the ones who adulterate. The law puts a premium on adulteration. I am not criticising you gentlemen, because neither of you was in Congress when that law was passed; but that is what it is—the rectifying law is a premium on adulteration. The law says that anybody who keeps a still or leach tub shall be considered a rectifier, and that any man who without rectifying mixes distilled spirits with any other substance to make a spurious imitation of whisky, rum, brandy, or other compound shall be considered a rectifier, and that he must carry on his business at least 600 feet from any distillery.

It is under that broad law that all this adulteration is done. Uncle Sam pays every year \$500,000 to see that they do not smuggle any spirits in or out of those establishments, and he gives them free of charge the stamps to put on the product, and all the salaries of the inspectors, and everything; \$500,000 a year are paid by the Government. And a man that puts a stamp on a straight whisky not only pays the tax, but pays for the stamp besides.

It costs 90 cents a barrel to bottle the straight whisky in bond. It costs the rectifier, the adulterator, nothing to do the same thing under the same supervision. And Mr. Yerkes has recommended that you put a tax of 20 cents on the stamp, 20 cents a barrel, against this so-

called whisky—make it a dollar when you put it in—for the stamps, and thus put them on the same footing.

Mr. COCKS. How does that happen; has there been a change in the law?

Doctor WILEY. No; the law in 1868, whenever it was passed, was made so then, and it has not been changed much since, except to increase the period whisky may remain in bond. It was made so because at that time the amount of rectification and mixing that went on were not very great. Everything was whisky. The new is all rectification and no whisky.

Mr. SCOTT. I think it will interest the committee, if you can do it with reasonable brevity, if you would describe the process by which whisky is made.

Doctor WILEY. I brought that along. I have written a bulletin on that—Bulletin 102, Bureau of Chemistry.

Mr. SCOTT. It is all in that?

Doctor WILEY. Yes; and in my farmers' bulletin on denatured alcohol we give the process of making alcohol. (Farmers' Bulletins, Nos.—.)

Mr. SCOTT. Up to a certain point the processes of making alcohol and whisky are the same?

Doctor WILEY. No; they differ in the start. In the first place, the spirit makers buy the lowest grade of corn they can get (No. 3, I believe) to make spirits of, and when you go to make whisky you buy the highest grade of corn and rye in the market. So that they differ at the start. The whisky manufacturer mashes it in an open tub at a low temperature, 140° to 180° F., and the spirit maker puts it into a boiler and heats it to 340°. The separation of the alcohol from the beer is usually the same in both cases. It is usually done in a three-chambered still, and thus they get the low wines.

Alcohol has about the same relation to whisky that pure starch has to meal or to flour—just about—or as distilled water to a mineral water. Everything is taken out of the flour except the starch. All the other valuable ingredients are gone. Everything is taken out of the whisky except the ethyl alcohol. All the other valuable elements are gone. You can never convert starch into flour, and you can never convert neutral spirits into whisky by any process.

Mr. SCOTT. Not by this marriage process that you have described?

Doctor WILEY. No, sir. In marriage you must have two parties. Now, you can not marry ethyl alcohol to anybody else. You must have some man to marry ethyl. You can not marry a girl unless you get a man to marry her.

Mr. FIELD. Doctor, when you see a man drunk can you tell what kind of whisky he got drunk on?

Doctor WILEY. My experience of drunken men is very limited, but I have the evidence of experts which shows beyond question that when a man gets drunk on spirits he is crazy drunk and when he gets drunk on whisky he is a jolly good fellow. I think we have indisputable evidence of that.

Mr. FIELD. Does not that depend on the temperament of the individual?

Doctor WILEY. It may, because I suppose a real gentleman would not drink spirits.

Mr. SCOTT. How can you help it?

Doctor WILEY. There is only one way to help it, and that is to live in a prohibition State.

Mr. SCOTT. Now you have stated the truth.

Mr. HAUGEN. What can you tell us about denatured alcohol?

Doctor WILEY. I can tell you a good deal about it. It is a great thing, but it is not the great blessing that some people have been led to expect, and that is the reason I wrote those two bulletins. Some people had the idea that the only thing you needed under this denatured-alcohol bill was to have a little still in your back yard, and that anybody could make this. It requires just as much art to make denatured alcohol as to make whisky; but you do not have to take out all these last traces. It is made with the same kind of a column as they use in making spirits, except that you do not have to carry it so far. You can make denatured alcohol out of anything that has starch and sugar in it. You can make it out of sawdust.

The CHAIRMAN. That is wood alcohol?

Doctor WILEY. No, sir. You convert the sawdust into sugar by hydrolosis with an acid.

The CHAIRMAN. You said sawdust, and I thought it might be wood alcohol.

Doctor WILEY. No. You can make it out of molasses or cane, or any old stuff. We sent out a man to Hoopsteston, Ill., and he found that you could get an excellent alcohol out of the refuse of a corn canning factory.

The CHAIRMAN. What refuse was that?

Doctor WILEY. The refuse from Indian corn.

The CHAIRMAN. What refuse?

Doctor WILEY. The cobs and scrapings and ears that they threw away as being tainted or too ripe.

The CHAIRMAN. You could turn all that into ensilage.

Doctor WILEY. Yes; it makes good ensilage, but it makes good alcohol, too.

Mr. SCOTT. Is not the waste of beet sugar factories valuable for this?

Doctor WILEY. Yes; the molasses, not the pulp. Beets have very little waste matter in them, but you take the molasses, which is totally inedible—nobody can eat beet-sugar molasses—and you can make alcohol out of that. It is almost the sole source of alcohol in France.

Mr. SCOTT. Is it not true that the refuse of the beet itself will make alcohol?

Doctor WILEY. No, sir; because you have taken out all the fermented matter. There is very little left. I think the denatured alcohol is going to be a great blessing to this country, but it is going to be a slow one.

Mr. SCOTT. In what way?

Doctor WILEY. It is going to make a cheap fuel for a lamp, for a chafing dish, and in remote localities for making a fire to warm the house, and it can be used to drive your motor and to drive farm machines.

Mr. LAMB. Do you think it would be proper to allow them to make ether out of denatured alcohol?

Doctor WILEY. Yes; I asked them to include ether and chloroform, but they would not do it.

Mr. LAMB. They make ether out of alcohol, you know?

Doctor WILEY. Yes; I understand it.

Mr. HASKINS. What is the relative cost of denatured alcohol and gasoline?

Doctor WILEY. Denatured alcohol, made from the materials from which alcohol is made to-day, will cost about 39 cents a gallon of the proper strength. Gasoline is worth about 22 cents a gallon, but gasoline is going up all the time and alcohol will be coming down all the time, and they will meet eventually.

Mr. HASKINS. That is made out of corn?

Doctor WILEY. You can make it out of any starch or sugar refuse, and, I believe, in the course of five or six years the cost of alcohol will come down to 30 cents, but the cost of gasoline will then be up to 30 cents. Then, again, alcohol is much more pleasant and safe to use than gasoline.

Mr. HASKINS. About what is the cost of constructing an alcohol plant of the size used commercially?

Doctor WILEY. I should say that you would not want to erect a plant that would make less than 500 gallons a day. It would cost about \$5,000 to \$8,000 to put up a plant of that sort, but larger plants proportionately less—very much less.

Mr. HAUGEN. Is that for the building?

Doctor WILEY. The building and an ordinary still and fermenting plant, and things of that kind.

Mr. SCOTT. Would it be practicable for the farmer to build one at a reasonable cost, with the sole idea of making his own product?

Doctor WILEY. I think a company of farmers would find it profitable to have a joint still.

Mr. HAUGEN. And run it on the cooperative plan?

Doctor WILEY. Yes.

Mr. BROOKS. I have been told that alcohol could be made out of potatoes very advantageously.

Doctor WILEY. So it can, but it costs more than corn.

Mr. BROOKS. The potato content is worth more for other purposes than for alcohol?

Doctor WILEY. The potato has only 20 per cent of starch, while Indian corn has 70 per cent of starch. That is a big difference to start with; and at its present price for consumption as food the potato could not be used for making alcohol.

Mr. LAFEAN. You said denatured alcohol was worth about 39 cents?

Doctor WILEY. Yes.

Mr. LAFEAN. And gasoline 22 cents a gallon?

Doctor WILEY. Yes.

Mr. LAFEAN. What would be the relative value in heat units?

Doctor WILEY. Gasoline has about 11,000 calories, whereas alcohol has about 7,500 calories. But for illumination it is as good as gasoline, for burning in a lamp.

Mr. BROOKS. How about power?

Doctor WILEY. You can use it with almost equal advantage for power because you can compress the alcohol vapor much more than you can gasoline vapor without danger. Compressing the vapor of

alcohol to twice the density to which you compress the vapor of gasoline, you will get about the same power, pound for pound.

Mr. HAUGEN. Returning to this State work, would it not be as well to pay the State a lump sum as to pay these salaries to these different men, and would not the method you suggest lead up to abuses in the way of salaries?

Doctor WILEY. I think it is far better to pay for the work and have it done under the supervision of the Secretary of Agriculture.

Mr. HAUGEN. Could it not be arranged to have it so? I want it under the supervision of the Secretary of Agriculture, but the double salary is what I object to, these men being paid a salary by the State and also by the Government.

Doctor WILEY. There might be abuses, but we should not do that except openly, and with the consent of the State authorities. We can arrange that. We have not decided on that plan definitely and permanently.

At 1.30 o'clock p. m. the committee took a recess until 2.30 o'clock p. m.

AFTERNOON SESSION.

The committee reconvened at 2.45 o'clock p. m., Hon. James W. Wadsworth (chairman) in the chair.

STATEMENT OF DR. R. A. RAMSAY, OF THE BUREAU OF ANIMAL INDUSTRY, DEPARTMENT OF AGRICULTURE.

The CHAIRMAN. I believe that you have had charge of this Texas cattle fever tick work, have you not?

Doctor RAMSAY. No; only temporary. For the last six weeks, since Doctor Steddom has been away.

The CHAIRMAN. The committee wants to know what work has been done under that appropriation, and with what success, and in your own way you can tell us.

Doctor RAMSAY. There has been a great deal of work done.

The CHAIRMAN. Tell us what the Department first did. How did you go to work to do it?

Doctor RAMSAY. The first step was to find out the laws that existed in the various States in regard to the handling of live stock and the way quarantines could be placed in the different States. Considerable trouble was found in that direction, for the reason that some of the States could not give the Federal Government any power in the State. Then we had men to go and make surveys of the country and make investigations to see where the fever tick existed to the greatest extent, and where it would be advisable to undertake work. As you know, the appropriation was not available until after June 30, and by the time they got started to work it was about the 1st of August. Since that time there has been over half a million of cattle inspected and a great many of them treated with crude petroleum oil, changed from pasture to pasture, with the result that at the present time about 50,000 square miles is released from the Texas fever quarantine that was formerly in it. An area about the size of the State of Virginia has been released as the result of the work since the 1st of August. Of course, that was a very short season.

The CHAIRMAN. In what part of the United States was that?

Doctor RAMSAY. That extended all the way along. Probably the largest amount of territory was in the State of California, and some in Oklahoma—not very much—and some in Texas and some in Kentucky and Tennessee and Virginia and North Carolina.

The CHAIRMAN. You pushed the quarantine line down a little?

Doctor RAMSAY. We pushed the quarantine line down a little all the way along, here and there, according as we could do the work.

Mr. LEVER. You did not do any work in South Carolina?

Doctor RAMSAY. We did some work there, but not to release any territory as yet.

The CHAIRMAN. Do you think you can release an isolated spot anywhere with safety?

Doctor RAMSAY. Yes, sir; there are certain pastures under fence, and we can cooperate with the men individually. But I was speaking of the regular national quarantine line across the country.

The CHAIRMAN. Do you think you could exempt a county, for instance, with any safety in the middle of Mississippi?

Doctor RAMSAY. Yes; but that comes under the State. The State comes in there. You see, the decision of the Supreme Court prevents us from interfering with their line.

The CHAIRMAN. Yes; I know.

Doctor RAMSAY. That is what the State has to do, and if they will do that we will allow them to come up, provided they are brought in cars that are clean and disinfected and stop at feeding yards and are well taken care of, and we will take care of them after they start.

Mr. BROOKS. How far does this quarantine line extend?

Doctor RAMSAY. You mean at any one point?

Mr. BROOKS. Yes.

Doctor RAMSAY. I suppose the highest point of the quarantine was in the State of Oklahoma. It ran up in Kentucky a good deal, but this year Kentucky will be released altogether.

Mr. BROOKS. This answers what I wanted to know. The California tract was an isolated tract from a separate source of infection?

Doctor RAMSAY. No, sir. Here is the California map here [indicating on map].

Mr. BROOKS. Yes.

Doctor RAMSAY. It is expected this year that by June 30 we will be able to put this line right down here [indicating] and release this whole thing [indicating].

Mr. BROOKS. Does the quarantine extend east into Arizona?

Doctor RAMSAY. Yes, sir; it extended into Arizona.

The CHAIRMAN. In California what did you release? Just show the committee.

Doctor RAMSAY. Here is California here [indicating on map]. This point running up here and on all that tinted blue down here [indicating] from our investigations, from the reports from the inspectors and the reports from the State men—they all show such a condition that we do not care to release it yet and put the line down. It might not be safe. But it is supposed that for the end of the fiscal year, June 30, this line could come right down here [indicating on map].

The CHAIRMAN. What is that red line there?

Doctor RAMSAY. That is the old quarantine line. This is the present line [indicating on map].

Mr. SCOTT. Where does this strike the west coast?

Doctor RAMSAY. It is right at the county line between San Luis Obispo and San Francisco and Monterey counties, right at the southwest line of Monterey.

Mr. SCOTT. Where is San Francisco?

Doctor RAMSAY. Right here [indicating].

The CHAIRMAN. What is the rest of that blue that you have there?

Doctor RAMSAY. That [indicating]—this checked blue—remains as it is. We have found so much infection here that we can not promise to let it out.

The CHAIRMAN. That is, toward the coast?

Doctor RAMSAY. Yes. We have found so much infection there that we can not promise to let it out, even with favorable conditions, in the spring. It is supposed that as we have done a lot of work here we can make these blue here [indicating on map] and let it out next year under favorable conditions of inspection. But this year it is proposed to get this red line here reduced down to here [indicating], and all these counties out [indicating], and next year this red, where we have done some work and cleaned the cattle up to some extent, we think could be made blue next year and put into what we call the provisional area.

Mr. SCOTT. The cattle which are in that blue-line area there are on the free, open range, are they?

Doctor RAMSAY. Some of them are on open range and some are in their pastures.

Mr. SCOTT. In a State where they are altogether on open range, before letting the quarantine line down any do you dip every individual head of stock that is in that territory?

Doctor RAMSAY. Yes; all that is on what we call open range.

Mr. SCOTT. Yes.

Doctor RAMSAY. And those which are clean and are kept under fence do not require to be dipped. But everything that is open—is liable to be exposed to other cattle and infected and are liable to become infected with ticks—are dipped, and then they are examined afterwards from time to time. We could not find any ticks on the cattle up here in that [indicating on map] last fall, and it is virtually clean now; but we do not care to lower the quarantine that much until they are examined next spring and we can see whether they are clean or not.

Mr. CANDLER. What is the treatment of the cattle that are affected?

Doctor RAMSAY. Some form of oil—crude petroleum has been used by the Bureau.

Mr. CANDLER. Has it been effective?

Doctor RAMSAY. Yes, sir; effective.

Mr. LEVER. Is that treatment expensive?

Doctor RAMSAY. No, sir. The freight and the cost of hauling it over an open range, an open country, for about 100 miles is the big expense. It is, I think, about 2 cents a gallon, and in some work we did with it in Montana for scab we paid \$116 for a carload of oil and \$136 for freight.

The CHAIRMAN. Tell us how the Department goes to work to clear a certain territory or to ascertain that it is clear and to arrive at the conclusion that it is clear; just the practical working.

Doctor RAMSAY. Maybe I had better read you Doctor Steddom's report on that.

The CHAIRMAN. Does it contain that?

Doctor RAMSAY. Yes, sir; it contains that. There is just a little of it here. It is all in the Secretary's report.

The CHAIRMAN. Yes; I read the Secretary's report, but that does not give the practical working. What bothers me is, with so much unfenced country, how you are going to hold it back, and how you are going to get it out and keep it out.

Doctor RAMSAY. When we let a piece of country out, we do not stop inspecting because we have released it, but we still keep inspecting out in the country that we have released. We do not desert this country here; and the State keeps going over it, and at any time they find a bunch of cattle infected they draw a quarantine line around it, and we sustain them in that by not allowing any cattle to get out of that area which they have quarantined until such time as they are thoroughly clean.

The CHAIRMAN. Are the States cooperating with you, in Tennessee and Virginia and North Carolina?

Doctor RAMSAY. Yes, sir; as well as their laws will allow. But in some of the States they will have to have their laws amended somewhat this winter, and they are all making the effort to have them amended this winter.

The CHAIRMAN. You see it is a case again of uniform laws.

Mr. CROMER. I would like to know something about the process of dipping.

The CHAIRMAN. Let Doctor Ramsay read this report first. I think the report will show it.

Doctor RAMSAY. This says that the conditions of the different sections are widely divergent. The conditions in Virginia and in California are very different. In the East we have little small bunches of cattle, and in the West we have the open range with a tremendous number of cattle.

The CHAIRMAN. You have a tremendous amount of infected territory here in the East?

Doctor RAMSAY. Yes; and that is the worst kind of territory to inspect and clean. The people have not the money invested in cattle in the Eastern States that they have in the West, and you can not get the cooperation. In the West they have all the money that they have invested in cattle, and they are generally in condition to take the matter up with their State men and get the laws that they want. If they want a law they get it. This report says:

In some States meetings were held at which the subject of tick eradication was discussed with farmers, stockmen, and other interested citizens. These meetings were intended to be largely educational, but they gave an opportunity to petition State authorities for relief and to express preference for local inspectors, thus developing an enthusiasm and interest that can only come from a close personal identification with an enterprise of this sort. In some places it was necessary to employ inspectors who could live in the saddle and wield a lasso like a cowboy. These men worked in groups of about a dozen, each group having a cook and a camping outfit. They covered their territory systematically, roping and examining cattle wherever found, and informing the owners of infested animals of the most practical method of getting rid of the ticks. It was found advisable to buy a carload of crude petroleum (in barrels) for use in the treatment of infested animals. This oil was distributed and used under the immediate supervision of inspectors of the Department in the south-

eastern States, and was doubtless the means of doing what could have been done in no other way, as the crude oil is difficult to obtain in small quantities and at points far distant from its production.

The following table shows by States the number of herds inspected :

Results of inspection work to October 31, 1906.

State.	Inspections.				Number of counties.
	Herds.	Cattle.		Total.	
		Free.	Infected.		
Alabama	780	4	5,550	5,554	2
Arkansas	1,527	6,671	2,332	9,003	2
California	1,015	67,517	58,889	126,406	11
Georgia	4,474	10,053	6,365	16,418	7
Kentucky ^a	4,077	13,653	7,332	20,985	4
Missouri	126	3,000	1,430	4,430	3
North Carolina					
Oklahoma	10,589	97,860	16,972	114,832	5
Tennessee ^b	6,317	23,204	15,840	39,044	17
Texas	410	86,682	99,175	185,857	17
Virginia					
Total	29,315	308,644	213,885	522,529	68

^a In addition, in Kentucky 1,396 herds and 6,904 cattle were reinspected.

^b In addition, in Tennessee 822 herds and 4,174 cattle were reinspected.

Below it says that 29,315 herds were inspected, and that these consisted of 522,529 cattle altogether. That is over half a million head.

The CHAIRMAN. Mostly in the West, in the California territory? How much of that is in the East?

Doctor RAMSAY. Here is Alabama with 780 herds, Arkansas with 1,527 herds.

The CHAIRMAN. What do you call a herd?

Doctor RAMSAY. That is all the cattle that a man has got. The cattle are recorded in that man's name and with his address.

The CHAIRMAN. If he has only one cow, you call that a herd?

Doctor RAMSAY. Yes; if he has only one cow. We show a great many more herds in the East, but not the same number of cattle.

Mr. COCKS. Can you give the number of cattle instead of number of herds?

Doctor RAMSAY. Yes.

Mr. COCKS. Give the number, rather than the herds.

Doctor RAMSAY. Take Alabama, with a total of 5,544 cattle. That was in two counties.

The CHAIRMAN. Let us see that. In Alabama? Where is that quarantine now? It is north of Alabama, is it not?

Doctor RAMSAY. Yes.

The CHAIRMAN. It is way up here at the southern line of Kentucky, is it not? Have you got it there?

Doctor RAMSAY. It is nearly all under quarantine.

The CHAIRMAN. Perhaps it is the southern line of Tennessee, the present quarantine line?

Doctor RAMSAY (after examination of map). Yes. Now, in Alabama, of course, we have been doing some work in that State, but the quarantine line is clear above. As one gentleman here stated, we are doing the work in patches, in hopes that we can get a patch of country that we can say to the State is clear, and throw a quarantine around this country, and it may be one or two or three or five counties. And

so we have been doing work all over, except down in Louisiana, where we really could not get a start at the work.

The CHAIRMAN. Where is that line now, the quarantine line?

Doctor RAMSAY. It is north of Alabama.

The CHAIRMAN. Is it on the southern edge of Tennessee or on the southern edge of Kentucky?

Doctor RAMSAY. It is on the southern edge of Kentucky and on the northern edge of Tennessee.

The CHAIRMAN. On the northern edge of Tennessee and on the southern edge of Kentucky?

Doctor RAMSAY. It runs up into Kentucky here, the quarantine line [indicating on map]. Here is Tennessee here, and it runs right across here, and last year it ran up there [indicating].

Mr. BROOKS. Doctor Ramsay, these minutes will be entirely unintelligible when they are written out unless you explain when you point this out to us on the map, instead of saying "here and here" and "there and there." Will you not say "To such and such a part of the country?"

Doctor RAMSAY. We will say there were two counties in Kentucky taken in, and that will be removed this year, and the line comes right to the northern part of Tennessee.

The CHAIRMAN. And Kentucky will be free altogether?

Doctor RAMSAY. Yes.

Mr. BROOKS. Does that map you have there, with a red line going diagonally across from southeastern Missouri to Texas, indicate the general outline of the quarantine strip?

Doctor RAMSAY. Yes.

The CHAIRMAN. That is what I was trying to get at.

Doctor RAMSAY. Yes.

The CHAIRMAN. And those purple spots on the map are the territory that has been cleaned this year?

Doctor RAMSAY. There has more than this been cleaned this year. This is an old map. A new map will be published on the 1st of February, when the open season is over.

The CHAIRMAN. Is all the State of Tennessee exempt now?

Doctor RAMSAY. It will be under the new regulations.

The CHAIRMAN. Is all the State of Virginia exempt?

Doctor RAMSAY. No, sir.

The CHAIRMAN. It will not be?

Doctor RAMSAY. No, sir.

The CHAIRMAN. I thought that you had very few there now.

Mr. LAMB. We have very few, but still we have that Greenville county, in North Carolina, bordering on us.

Doctor RAMSAY. Yes.

Mr. LAMB. But you are still moving farther on, and pretty soon Virginia will be exempt, I hope.

Doctor RAMSAY. They estimate that in another year Virginia will be exempt.

The CHAIRMAN. Just explain to the committee about that place in Alabama where you are trying to clear a spot.

Doctor RAMSAY. I could not point it out on this map.

The CHAIRMAN. About where is it?

Doctor RAMSAY. About in the middle of Alabama.

The CHAIRMAN. How far south of the present quarantine line?

Doctor RAMSAY. It is probably 150 miles.

The CHAIRMAN. Do you really hope to be able to go right into an infected territory and clear off a spot and keep it clear?

Doctor RAMSAY. At such places as the county will cooperate. In some places they do not care anything about cooperation, and in those places there is no use in our trying to do it. They have got to be educated in regard to the value of rotation of crops.

The CHAIRMAN. It is a good deal like going into a smallpox hospital and trying to eradicate the disease in one ward.

Doctor RAMSAY. It is going to be much easier to do than it is to go into the sugar region and get a rotation of crops.

Mr. LAMB. You have no fence laws in most of these States; that is the trouble.

Doctor RAMSAY. Yes, sir; that is the trouble, we have no fence laws.

The CHAIRMAN. For instance, in that place you are trying to clear, down in Alabama, how about that fencing in there?

Doctor RAMSAY. We have men there that own large tracts of land. In the sugar belt where a company owns a large tract of land they have a tenant on it, and they control that, and by our explaining it they see that it is for the benefit of the people to eradicate the ticks, and they cooperate.

The CHAIRMAN. Suppose that is not fenced, what is to prevent the cattle from outside the territory from roaming in?

Doctor RAMSAY. They prosecute them for violation of the law.

The CHAIRMAN. But in the meanwhile that exempted territory has been again subjected to disease.

Doctor RAMSAY. That is what the State appropriation is for, to keep up those line riders. We have line riders all along here in this open country; in December and January we have line riders wherever the State line happens to be the quarantine line. We are protecting that with line riders, riding along to see that nothing comes out. Every man has so many miles to ride, 20 or 30 miles.

Mr. LEVER. You are doing no work at all except in States which cooperate with you, is that the idea?

Doctor RAMSAY. We have to consult the States first.

Mr. LEVER. I understand.

Doctor RAMSAY. We can hardly do the work, any more than we have always done. That is, this whole country is under quarantine, and they can not ship anything north, and all we can do is to pay attention to the State line, and the work in the State must be done with the cooperation and under the authority of the State law.

Mr. LEVER. What do you require of the State authorities?

Doctor RAMSAY. We require them to take care of the quarantine line wherever it runs across a State.

Mr. LAMB. All you can do is to prevent those cattle from crossing this line?

Doctor RAMSAY. We can not prevent them from crossing the line where the line is not a State line, but the States can prevent that.

Mr. LAMB. You can prevent them from shipping on the cars, and bringing those cattle across on the cars?

Doctor RAMSAY. Yes; we can prevent them from bringing the cattle out on the cars.

Mr. LAMB. Then if the State law is in conformity with yours, and you work in harmony, it would produce a splendid result; but if the people of the State want to turn the cattle out on the commons, and public sentiment is against you, it is a hard matter to control those people.

Doctor RAMSAY. That is the trouble.

Mr. LAMB. That is the trouble; and then you run a line around them and quarantine a certain territory?

Doctor RAMSAY. That is what we are doing. The Secretary issues his proclamation of quarantine, and he mentions all these States, all of Oklahoma and Texas, and all of Tennessee, and all of Virginia, and all of North Carolina, and then that is all that he can do. But with cooperation from the State, the State says, "We want to draw the line across at a certain place;" and on the recommendation of Bureau inspectors we send out there to investigate the proposed line, we make that the State quarantine line, and they do the prosecuting when there is any to do, and we help to take care of the line. We do not receive shipments from below it. We recognize that in the shipment of cattle for a northern market.

Mr. LEVER. The State of South Carolina, as I understand it, has no State law at all?

Doctor RAMSAY. No, sir.

Mr. LEVER. I do not see how you can work in cooperation with them if they have no machinery through which they can work.

The CHAIRMAN. He says there is an effort to pass laws in the States where there are now no laws.

Mr. LEVER. Yes; we have a bill this year.

Doctor RAMSAY. That is one reason why there has been not quite so much work done in South Carolina.

Mr. COCKS. I do not understand the reason for going down below the line and starting work in the State of Alabama. It seems to me it would be well to start on the line and push the line down.

Doctor RAMSAY. The communications from the State of Alabama would indicate that they think they are being neglected. They want to know where the money appropriated last year is being spent, that was appropriated for the eradication of the cattle tick in Southern States, or in the tick-infested area.

Mr. COCKS. The Secretary should tell what parts it should be expended in.

Doctor RAMSAY. I know, but they want to tell the Secretary. They insist on some money being spent in their States.

Mr. HAUGEN. How much has that State spent for this work?

Doctor RAMSAY. They have not spent very much.

The CHAIRMAN. The whole talk before the committee last year was to push this line south every year; and they said that it would not take but a year or two to free Virginia and North Carolina and South Carolina and Kentucky, and so on through. That was the general talk, to push the line south, and not go into the center of the territory.

Mr. RANSDALL. May I be permitted to say a word, Mr. Chairman?

The CHAIRMAN. Yes.

Mr. RANSDALL. I had charge of that hearing here last year, and if you will allow me to say a word I would like to say that some of these agriculturists testified that there were areas in the South which were practically free now, and they cited a region of 9,000 square

miles in the State of Louisiana that was free, and they said that they could with the aid of the State authorities absolutely free it and throw a quarantine around it. That has not been done because of the failure of the State law to permit the necessary cooperation, but that I remember was surely testified to here, and it may be that this area in Alabama is, as the gentleman says, practically free; and we are trying to start an area there that is free and work both ways.

Doctor RAMSAY. In such a case as that we would send an inspector there to be satisfied that what they say is right.

Mr. LEVER. And you would permit shipments from those localities in disinfected cars?

Doctor RAMSAY. We have not got any territory yet. We hope we will be able to turn an area loose here and there and make it a noninfected area. It has been only a few months that the work has been going on.

Mr. SCOTT. As a matter of fact, in your personal judgment, would you think that the result which we are all seeking, that is to absolutely crowd the quarantine line down to the southern boundary of the United States, would be reached more rapidly by working as Mr. Cocks suggested, along the line of that quarantine, pushing it down as you go, or would it be reached more rapidly by jumping over some intervening area and going to work in the middle of a State?

Doctor RAMSAY. I would recommend doing the work in spots as an education to the people in the places who do not want to do any work. We always find that very effective. Suppose they do some work in a space like this. Throw down the line here and let these people go out the next year as north of the line, while these people up here to the north are still held. They soon see where they made a mistake in not cooperating with the State or the Bureau, and it is always, probably, the most valuable kind of education to do that. Sometimes the people will not even allow our inspectors to inspect their cattle.

The CHAIRMAN. In this section of country down in Alabama is there any amount of cattle there?

Doctor RAMSAY. In some parts.

The CHAIRMAN. What is that—a cotton country?

Mr. LAMB. Yes, sir; it is that.

Doctor RAMSAY. There are not so many in the cotton country as there are in the sugar country.

The CHAIRMAN. Is there some sugar in Alabama?

Mr. FIELD. No, sir; not in Alabama.

Mr. SCOTT. To some extent, then, we are pushing this for the benefit of some other people?

Doctor RAMSAY. That is always the case.

Mr. LAMB. Two or three farmers in a community, as he says, will always protest against any inspection and will assert their rights in the matter and will keep a whole community from being freed, because these people will not declare them freed until the whole is released, and you have to quarantine right around those people and drive them out. They see their neighbors in the adjoining counties shipping and they see the advantage of it, and you appeal to their selfishness; that is the only way of getting at them—by showing the advantage of the quarantine line. In that way they have released

about a dozen counties in Virginia and they are pressing that line farther down toward North Carolina, until perhaps next year the line will extend down to the borders of South Carolina. But those people down in Greenville County, they turn their cattle loose in the woods and they get the ticks and come into the pasture ground and other cattle are infected.

The CHAIRMAN. Are you doing any educational work at present?

Doctor RAMSAY. We are doing patrol work, patrolling the line and keeping in touch with the work, so that they will know that we will be there next year, if the Department gets an appropriation to put us there. And it is thought advisable not to take all the men away, but rather to leave them there so that they may be getting ready and educating the people along from time to time in the work of cleaning up the infection.

The CHAIRMAN. There is very little movement of the cattle from the cotton section north?

Doctor RAMSAY. Not very much, because the cattle are too small, and it is not an industry down there to any extent.

The CHAIRMAN. There is some cattle industry in southwest Virginia; there is a good industry there?

Doctor RAMSAY. Yes.

The CHAIRMAN. And in Tennessee, of course, and in Kentucky. There is very little in that southwest corner—Scott County and Tazewell County. Is there any in North Carolina?

Mr. LAMB. Yes, sir; they ship them up to Richmond constantly.

The CHAIRMAN. You get a lot of those mountain cattle?

Mr. LAMB. Yes.

Doctor RAMSAY. Yes; and they are hard to inspect in that mountain country.

The CHAIRMAN. The ticks are not very bad there?

Doctor RAMSAY. No; not until you get to the edge of the timber.

The CHAIRMAN. Have you a memorandum that will show how much of the appropriation has been expended up to the 1st of January or up to the present time?

Doctor RAMSAY. Yes; I think I have. For the first quarter—June, July, August, and September, to September 30—there was expended \$23,230.61. For the next quarter—for the quarter ending December 31—there was expended \$46,071.72, making a total of \$69,302.33.

The CHAIRMAN. That leaves you about \$13,000 for the next?

Doctor RAMSAY. Thirteen thousand dollars. We have got quite a good many men on pay yet, as I say, doing educational work and patrolling the lines here and there and keeping track of the cattle that we have under quarantine. We have some bunches of cattle on this provisionally quarantined area north of the line, and they go every two or three weeks and see that they are there.

Mr. SCOTT. Your expenditure is chiefly in the way of salaries?

Doctor RAMSAY. Principally in the way of salaries. You might say in the first quarter for salaries the amount was \$13,593. For additional compensation—that is, for hire of horses and hire of local men and rigs to take the men there, and cowboys to help them, \$1,311. And under authorization \$7,934.

The CHAIRMAN. What does that mean?

Doctor RAMSAY. Expenses under regular authorization, such as board and hotel bills and office rents, and so on like this—office help.

All those are authorizations, authorized by the Secretary of Agriculture—under his authorization. Traveling is done on transportation requests—what we call Government transportation requests.

Mr. SCOTT. What is the estimate of the Department as to the amount needed to carry on the work during the next year?

Doctor RAMSAY. The Secretary made one estimate in August, when this work was really just nicely started. He made an estimate then of \$82,500. Then near the close of the year, in November, he made a later estimate—after viewing the work and being advised as to what could be done next year and the necessity for it, and on account of the assurances from the different States that better cooperation would be given and better laws would be made—he made an estimate of \$250,000 for next year.

Mr. SCOTT. Do you have any figures showing how much the States have spent this past year in cooperation with this work?

Doctor RAMSAY. I do not believe that we have got that here. We have those data at the office, and I could supply that to you.

Mr. SCOTT. If you have not it here, I wish you would furnish the committee with it, and furnish it so that it can go in the record of this hearing, in the proper place.

Statement of amounts expended by States in cooperative work.

Virginia	(a)
Arkansas	\$662.35
California	17,000.00
Texas	500.00
Oklahoma	7,000.00
Louisiana ^b	2,747.00
South Carolina	318.50
Kentucky	(c)
North Carolina	6,000.00
Total	34,227.85

Doctor RAMSAY. You would like to have the amount of money expended by each State?

Mr. SCOTT. Yes.

Doctor RAMSAY. Yes.

Mr. SCOTT. You said a little while ago that in these areas that you had freed you would continue the inspection?

Doctor RAMSAY. An occasional inspection; yes, sir.

Mr. SCOTT. I would like to know how long you would expect that inspection to continue?

Doctor RAMSAY. Well, for a year. As the chairman states, there will be occasionally a bunch of cattle get across the line. We are not sitting up nights to watch them, and whenever they do get across some person is always ready to report it. Their cattle are clean, and they want to keep them that way, and they want to stay above the line, and we get a report in regard to a violation, and when we get it we go out and investigate and find that it is so. The State throws a quarantine around that man's farm who broke quarantine where the cattle are, and they have got to stay there. If necessary, if they are

^a Not yet reported.

^b Not cooperative; independent.

^c Small amounts expended by three counties.

out on the open range, we put a line rider or two over them to see that they stay there.

Mr. SCOTT. Suppose we got this line down to the Mexican border, would the ordinary quarantine suffice to keep our territory free from the tick, or would there still have to be a large force of inspectors traveling around over the territory where the tick has been?

Doctor RAMSAY. There would have to be more or less inspection wherever we find any ticks or any cattle infected. Of course as soon as the line goes south the northern cattle crowd down. People want to get the northern cattle. Of course you get deaths when the northern cattle go down there and get the ticks, and that is a good way to find out where the disease is—by coming in contact with the disease. The cattle become immune, and as soon as the cattle come in that are not immune we have deaths.

Mr. SCOTT. Is there a reasonable hope that if we could get this line down to the Mexican border we could then with a reasonable expense assure the healthy condition of our own country?

Doctor RAMSAY. Yes; I think we could.

The CHAIRMAN. You would have the cooperation of the Interstate Commerce Department, then.

Doctor RAMSAY. Were you speaking of the Mexican line or of little outbreaks here and there over our own country?

Mr. SCOTT. I was trying to find out to what extent you thought little outbreaks over our own country might occur.

Doctor RAMSAY. There would undoubtedly be some occur, as with all diseases. You can not totally eradicate the whole disease at once. There are going to be a few ticks left here and there, no matter how much care we take. With the greatest care, after having an area released from quarantine for a year, we are liable to have some ticks. We even found some in the State of Ohio recently.

The CHAIRMAN. In Ohio?

Doctor RAMSAY. Yes; one little outbreak. We immediately quarantined and had the cattle cleaned and disinfected.

Mr. LAMB. You can account for that, can you not?

Doctor RAMSAY. Yes; they came up with some shipments of cattle.

Mr. LAMB. Exactly. The cattle are immune, but as soon as you get them up in a higher latitude then it will kill them right away. I lost 40 one year that way.

Mr. SCOTT. Would these ticks that got up to Ohio have lived over the Ohio River?

Doctor RAMSAY. No, sir; they would not have lived through an Ohio winter, but they would have killed some cattle before the winter came.

The CHAIRMAN. They probably came up on some Texas feeders.

Doctor RAMSAY. Yes; they very likely came on some Texas feeders.

Mr. FIELD. Would they travel from one animal to another?

Doctor RAMSAY. Not the tick itself. But they drop to the ground and the eggs hatch there, and these little fellows would attach themselves to the cattle. The little fellows are the ones that have the poison in them.

Mr. SCOTT. Of course this instance in Ohio is an illustration of how the quarantine may fail. It failed in that particular case.

Doctor RAMSAY. Yes; there will be a failure once in a while. But with all the cattle that have been moving from the South to the North

to all the markets we have had but very few cases. I mention this Ohio case as an instance that I know of.

Mr. SCOTT. But such instances are very rare?

Doctor RAMSAY. Yes.

Mr. LAMB. These cars will carry them. You go down South and you will find cars there from New England and all over the country.

Mr. SCOTT. Yes. I think it is remarkable how efficient the quarantine is, considering.

The CHAIRMAN. That is right.

Doctor RAMSAY. You come to consider stretching a quarantine from one seacoast to the other, and it is quite a large undertaking. There will be a case now and then. I do not know of but two or three cases in the past year.

The CHAIRMAN. Did they lose many cattle in this last outbreak?

Doctor RAMSAY. Only two or three, I think.

Mr. SCOTT. Did you get your inspectors for this service through the Civil Service Commission?

Doctor RAMSAY. Some of them, and then we employed a lot of local men. The State recommended these men, and we employed them and paid them; that is, we gave them what we call temporary appointments, under the civil service, on account of not having civil-service men.

Mr. SCOTT. You found no difficulty in getting all the men you wanted?

Doctor RAMSAY. No, sir; we got the men to do the work that we could undertake with the amount of the appropriation we had.

Mr. SCOTT. Do you think there would be any trouble in spending \$250,000?

Doctor RAMSAY. No, sir; I do not think so. If we had time to get the men we could assure them of work.

Mr. SCOTT. I mean do you think there would be any trouble in spending it economically?

Doctor RAMSAY. That is the way we want to spend it; that is the only way the Department does spend any money. I have always found them very close. You have got to account for every 10-cent piece.

Mr. SCOTT. It is a good deal of a jump, from \$82,000 this year to \$250,000.

Doctor RAMSAY. Yes.

Mr. SCOTT. It is a good deal more complex and difficult thing to organize a service that will expend economically \$250,000 than it is to organize a service that will spend \$80,000.

Mr. LEVER. I suggest that Doctor Ramsay tell us just how he is going to spend that, to get it in the record.

Mr. SCOTT. I should be very glad to have him do that.

Doctor RAMSAY. As I told you, I am not the man who is actually spending that money, and I did not organize the work. I have simply been taking care of it for the past six weeks, as Doctor Steddom has been on a trip out to the Pacific coast to see the work personally.

Mr. SCOTT. When will he be back?

Doctor RAMSAY. About the 1st of February.

The CHAIRMAN. What part of the work have you been doing?

Doctor RAMSAY. I have been in charge of the general shipping; what we call the quarantine work of the southern cattle going north,

the quarantine work, these shipments, say, going to Ohio, and I have been looking after the work at the stock-yard centers, and I have had charge of the general eradication of the cattle and sheep scab, what is known as supervising inspector of all that work. I have been outside, and Dr. Steddom was in charge of the work here in the office, and he wanted to take a trip himself, so that I came in to do the office work, and he has gone out for a trip on this southern California line.

Mr. LEVER. But you are familiar enough with it to believe that in the interest of the cattle interest of the South if we appropriate this \$250,000 you can spend it economically in the next year?

Doctor RAMSAY. I believe it can be organized to take care of that work as well this year as the organization could be made last year to spend \$80,000 satisfactorily. It is always difficult to start the first organization, and the organization is well started, and for that reason we are keeping partially up during the winter.

Mr. LEVER. And this industry is big enough to warrant Congress in pushing the work of eradicating the tick, and getting rid of this infected area as rapidly as possible.

Doctor RAMSAY. We estimate that the southern cattle tick is costing the country about \$60,000,000 a year in losses, directly and indirectly.

The CHAIRMAN. How do you make up those figures?

Doctor RAMSAY. Well, I could not tell you all the corners, but there is a bulletin gotten out by our pathological division that explains that. It is made up by the loss in milk and in meat, and the loss from being unable to get northern cattle down there to improve the breeds of cattle in the South, so that the cattle there have become deteriorated and run down. They can not get a bull down there to cross on them to improve their herds in any way, and they are not making the money out of their cattle that they ought to make. The South should be a good cattle country.

Mr. LEVER. What is the difference in price of the cattle above and below the quarantine line?

Doctor RAMSAY. Just about half.

Mr. LEVER. About half?

Doctor RAMSAY. Yes; I do not know that it would be quite that.

The CHAIRMAN. That is almost as much due to the quarantine line as to the quality of the cattle.

Doctor RAMSAY. That is due to the quality of the cattle, as I say.

The CHAIRMAN. The great cattle country in this country is north of the quarantine line, except in Texas.

Mr. LEVER. But the quality of the cattle is largely affected by the presence of the cattle tick?

Doctor RAMSAY. Yes.

Mr. LEVER. And the Texas fever?

Doctor RAMSAY. Yes.

Mr. CANDLER. And the fact that they can not get the northern cattle down there is due to the fact that if they took them there they would become infected with the tick, and it would give them the fever and kill them?

Doctor RAMSAY. Yes, sir.

Mr. LAMB. Everybody knows that you can not carry cattle within a hundred miles of there without their becoming infected.

Doctor RAMSAY. I was told by one man that he had been offered, if he would guarantee that a bull would live six months down there, they would give him \$400 for a bull that he offered them for \$100. He came to the Department and wanted us to improvise ways to immunize cattle, so that he could send a carload of bulls down there and take their notes at six months, on condition of the bulls living six months, at \$400 apiece. The southern people are very anxious to get good cattle.

The CHAIRMAN. On the other side of that, it is an extraordinary thing how the cattle in the State of New York have deteriorated in the last twenty years. We have not anywhere near as good cattle in New York as we had twenty-five years ago.

Mr. LAMB. How do you account for that?

The CHAIRMAN. They have gone into the dairy breeds and crossed them all up. Anything to get a calf and keep the cow in milk. I imagine the value of the cattle in the State of New York, notwithstanding the increased numbers, is a good deal less than the value of the cattle some twenty years ago. The dairy cattle are not good. They have crossed them up in all sorts of ways. The farmers themselves have used no judgment in the breeding of their dairy cattle, and they have crossed them all sorts of ways—Jerseys and Guernseys and Devons, and everything else. They had better breed from type than cross them up with everything. It is anything to get a cow in milk again. They do not raise one-fourth of their calves. So the fault does not lie in the South entirely with the cattle tick.

Doctor RAMSAY. Of course, the quarantine law takes effect February 1, and the ticks will not be active, so that we can not do anything in the eradication work until April or May. It comes earlier in some States than it does in others.

Mr. CANDLER. You have sufficient force now in the different States to keep the matter in statu quo until the season comes again?

Doctor RAMSAY. Yes; we have kept up an organization with a few men at each station.

Mr. CANDLER. And you believe that the work can not be carried on as it should be without this appropriation of \$250,000—it will take that much?

Doctor RAMSAY. It will take that much to organize the work right. Of course the appropriation of \$82,000 was given more as an experiment, to see whether the work of eradication could be carried on or not.

Mr. CANDLER. Have you had applications for work from Mississippi?

Doctor RAMSAY. We have had men there looking it up, but we have not done any work there as yet.

Mr. CANDLER. What part of the State have you been in?

Doctor RAMSAY. There is a Bureau man there now, traveling and making reports generally, all over the State, reporting conditions.

Mr. CANDLER. What is the condition?

Doctor RAMSAY. The condition is that there is pretty general infection.

Mr. SCOTT. About what proportion of the total area of this country is south of the quarantine line now?

Doctor RAMSAY. About what proportion of the United States?

Mr. SCOTT. Yes.

Doctor RAMSAY. About one-fourth of it. We have 11 States that we have quarantined. Eleven from 45; that is about a quarter of it, as near as we can guess at it, on a rough estimate.

Mr. SCOTT. Have you made any estimate at all as to the length of time it would take you to clean up the country, based upon your experience of this year, assuming that you should be given your \$250,000?

Doctor RAMSAY. I see from the sum estimated by one man who had been engaged in the work that it would take about twenty years to clean it up. That would take about \$200,000 a year.

Mr. LAMB. Let me ask you this question: Unless the States cooperate with you, and the people of the State are willing to stop turning the cattle out on the commons, can you do anything? Must you not first have a hearty cooperation of the State authorities before you can do anything?

Doctor RAMSAY. Yes, sir.

Mr. LAMB. That is the secret of the whole thing?

Doctor RAMSAY. Yes; and that cooperation is coming right along as we get ready to do the work.

Mr. LAMB. I hope so.

Doctor RAMSAY. The State of Mississippi and the States farther south have not got ready yet, and they are not going to meet trouble until it comes.

Mr. CANDLER. Where there is no fence law it is very hard. Where there is a stock law you have easier sailing?

Doctor RAMSAY. Yes; and they are getting stock laws; the different county commissions are making stock laws right along. The counties are taking that up. They realize that it is for the benefit of the people in the community. They are cooperating in every State, and they do a great deal of that in Virginia and North Carolina and right along. It is more by counties in the East than in the West. In the West we take it up under the State work and State appropriations; but the counties in the East take it up themselves. The county organizations are better in the East than in the West.

Mr. LEVER. Your work has been largely experimental this past year?

Doctor RAMSAY. Yes.

Mr. LEVER. And you have been trying to demonstrate that you can do something?

Doctor RAMSAY. Yes.

Mr. LEVER. And you have convinced yourself that you can do something?

Doctor RAMSAY. Yes; we believe that it is possible now.

Mr. LEVER. But you find that without an increase in your appropriation as large as this—to \$250,000—your work would have to be carried on in a desultory way and rather ineffectively?

Doctor RAMSAY. Yes, sir; we could not take up the work to the extent that would be necessary to go ahead and clear much ground each year.

Mr. SCOTT. You have cleared approximately 150,000 square miles?

Doctor RAMSAY. We have tried to spread that over the whole country. If this had been concentrated, you would have noticed it much more. But this has been a national appropriation, and the

money has been spent a little in each State, you see; we had work to do in each State.

Mr. SCOTT. I was going to ask this question: You have cleared 50,000 square miles this year. Do you not think with \$82,000 next year, and with the benefit of your experience and your organization, you could do at least that well next year?

Doctor RAMSAY. I should think we could.

The CHAIRMAN. You could do more, could you not?

Doctor RAMSAY. I should think so. Maybe more. Yes; I should think we could.

Mr. SCOTT. I should think that on account of having to experiment, as you say, all along this 5,000-mile line, you must have done some work that did not count.

Doctor RAMSAY. Yes.

Mr. SCOTT. Now, having made your experiments, could you not concentrate your work next year on some one section, say at the east of the line, and clear an even larger aggregate area than you did this year?

Doctor RAMSAY. That is placing the Secretary in a very difficult position, because these men in the West have much more in the cattle business than the men in the East, and they put in their claims for the eradication of the cattle tick out West.

Mr. SCOTT. Then commence in the West. I merely said the East for illustration.

Doctor RAMSAY. I think that each State that has a quarantine line across it should be given some work. The people all want some work done in their States, and this is a national appropriation expended by the Government, and they naturally put in their claims, and if we tell them to wait ten years, until we get to them, they are not satisfied.

Mr. SCOTT. It is well enough to put in the claims, but we vest in every executive officer discretion in all kinds of appropriation bills to do certain kinds of work in certain places, and the fact that the work may be wanted along the entire line of 5,000 miles does not impose on the Secretary the obligation to do that work.

Doctor RAMSAY. If the Secretary is sustained by Congress and instructed by Congress as to where the money is to be expended. But under this appropriation we try to do some work under all conditions, under the open range and under the farm conditions of the East, and now the Secretary is in shape to know about what can be done, and for that reason he asks the appropriation he does, believing it can be used judiciously.

Mr. SCOTT. That is a matter that could be taken up with the Secretary. I would say right here that I have no doubt that the committee regard it as entirely proper that he should have made experiments so as to find out what he could do under the different conditions that exist, but having made that experimentation, it would seem that if an appropriation is made that does not permit him to do the work all along the line, as a matter of common sense he would exercise his discretion and do that work where it would bring the best results.

Doctor RAMSAY. That would bring up the accusation of discrimination against the Secretary, unless he is actually instructed as to the distribution of the appropriation he receives.

Mr. LAMB. What do the open-range people in Texas say? Have you done anything there?

Doctor RAMSAY. Yes; quite a good deal of work there.

Mr. LAMB. They are alive to the thing?

Doctor RAMSAY. Yes; they are very much alive.

The CHAIRMAN. That is a great industry down there.

Mr. HAUGEN. You say some States have more interest in this than others?

Doctor RAMSAY. According to the amount of money that the people have invested in the cattle business.

The CHAIRMAN. They show their interest by making appropriations to cooperate with you, these States do?

Doctor RAMSAY. Yes.

The CHAIRMAN. Do you not believe that those States should be considered first, and that they should be taken care of first, where there is an industry of that kind?

Doctor RAMSAY. I would not care to express myself on that, because that looks like auctioning off the Federal work.

Mr. HAUGEN. Say there is a State here with \$100,000,000 in the cattle industry. Should not that State be taken care of in preference to some State that might have a cow to every two sections or four sections of land, or possibly \$1,000,000 invested in stock, and which takes no interest in it and where there is no industry of the kind—where there are no cattle?

Doctor RAMSAY. I have my own personal views on that, but I would not care to express them as an officer of the Bureau at all.

Mr. HAUGEN. Do you think we should appropriate \$250,000 and absolutely force it upon these people?

Doctor RAMSAY. The people where we have been working some have accepted cooperation and expect more work next year.

Mr. HAUGEN. Is it possible for any community to rid themselves of the cattle tick? They can clean these cattle as well as you can, and they have your bulletins, and it is possible for any community to take care of the tick in the South as well as take care of the sheep scab in the West.

Doctor RAMSAY. It is possible, but not at all probable.

Mr. HAUGEN. I want to get at this. The people that appropriate their money, the people that have the cattle and have the money invested, are not they to be taken care of first? Or are we to go to these places where they have a cow that is worth about \$2 or \$3 on every section of land, scattered very sparsely over the country, or should we not do more work where, for instance, in some of the States they have them by the hundreds; yes, and by the thousands—ranches—and where their capital is invested in that industry? It seems to me those people are entitled to more consideration.

Doctor RAMSAY. Those people have gotten more good out of what money has been expended in their States than the other people have, because they spend a great deal more money and time in cooperating with the Government than the other States. As I say, California and Texas have both gotten more territory free than the other States, because they did so much more work themselves. They employed more State men.

Mr. HAUGEN. They are more interested and it is a larger industry.

Doctor RAMSAY. More interested. One man in the State of Texas alone offered \$50,000 toward the fund.

Mr. SCOTT. Was that offer accepted?

Doctor RAMSAY. No; the Bureau could not accept the money.

The CHAIRMAN. To cite a parallel case to what Mr. Haugen has mentioned. I had an outbreak of scab. It slipped through the quarantine at Buffalo. I did not ask the Government to stamp it out for me. I knew what to do; I knew it from Government publications. I took the steps to do it. These people know exactly how to drive the ticks off of their farms.

Mr. LAMB. They will not do it, because they want to turn their cows out in the woods.

The CHAIRMAN. They can do it if they want to.

Doctor RAMSAY. In the open range you can clear the ticks off over a certain territory, and the men that are grazing there can keep their cattle clean, and that is all right until some fellow takes a notion to trail some ticky cattle across that range, going to market or going to somewhere else, and he infects your range again. And it is the same way in the East. A few men can clean up their cattle and absolutely eradicate the tick, but others will absolutely refuse, and you will find that in every State there are those who will refuse to do anything.

The CHAIRMAN. That is the objection I found a minute ago in your going right down into the middle of the infected territory and establishing a quarantine even on the borders of that country. The land is not fenced and cattle can wander in there and stay there for weeks in that sparsely settled and unfenced country without being discovered. The South is very lightly fenced.

Doctor RAMSAY. The people promise to protect them by range riding—by line riders.

The CHAIRMAN. As you say, they do not ride at night. Cattle could get in there with ticks on them and stay in there for weeks without being discovered, and that country would be infected without your knowing it, and perhaps the cattle would be shipped out with a clean bill of health.

Mr. FIELD. I think you have fallen into an error about there being any isolated territory as shown on this map. The quarantine line was always an irregular line, not running on parallel lines.

The CHAIRMAN. I know that they run a good deal on county lines.

Mr. FIELD. Take that county work in California. All the work that is done is zigzag, but it extends over a given line.

The CHAIRMAN. But there was no tick on the north side of it. This is on the south side.

Mr. FIELD. There was a little place running up there in the shape of a tongue in Kentucky [indicating on map].

The CHAIRMAN. They have exempted that now?

Mr. FIELD. Yes; and this work would manifest itself in the new work as it would in the original work.

Mr. SCOTT. But I think that the chairman's inquiry went to this point: Why it was that an area should be taken in the interior of Louisiana having infected territory all around it?

Mr. FIELD. I think the witness is mistaken in the fact. If the map means anything, it does not show any such work.

The CHAIRMAN. In his talk he says that they propose to do that.

Doctor RAMSAY. I say we are making some investigations. We have not done this as yet. We have men where the people have asked for work to be done away from the line—south of the line. Some of those people do not want to wait for ten years until we get down to

where they live. They have recognition now, and they have perhaps as much as a small State that they would like to have called free and to be able to ship out of, and they want us to make an investigation and examine the cattle and see if that could not be done. It has not been done yet.

Mr. SCOTT. If you did that there would be infected territory all around it?

Doctor RAMSAY. Yes, sir; and they would have to be at the expense of maintaining the line.

The CHAIRMAN. That would be at one side of it.

Mr. FIELD. That is right, if the witness properly comprehends it. Suppose a small territory in Alabama, isolated from its neighbors, by its own efforts rids itself of the tick. Is there any reason why, if they observe a quarantine line around this territory, the Government should not remove this boundary, or why the Government could prevent them from shipping out of that immune territory?

The CHAIRMAN. No; if they could continue to be assured that there are no ticks there; but a section may become infected overnight.

Doctor RAMSAY. There is always a great deal of land fenced, and some of it bounded by rivers, so that there is only a quarter or a half of it to ride, but the boundaries are usually marked. We find in the scab work out West that it is not as much trouble to keep these lines as you would think.

Mr. LEVER. You are doing scab work in the West?

Doctor RAMSAY. Yes.

Mr. HASKINS. By whose authority were quarantine lines established as indicated upon your map here, and where you have been doing your work?

Doctor RAMSAY. By each State authority, by the Secretary of Agriculture representing the nation, and each State sanitary board appointed by the governor or by the governor himself representing each State.

Mr. HASKINS. Those quarantine lines, then, are not confined to State lines; they are within a State, are they not?

Doctor RAMSAY. The Secretary quarantines the whole State. Then as a result of cooperating with the State he lets a part of it loose, and calls that a quarantine line, so that the State helps to maintain that line where it runs through a State.

Mr. HASKINS. What is there to prevent the owner of cattle within a quarantined district for shipping those cattle out of that district?

Doctor RAMSAY. If the railroad would accept them, he could do so. The railroads all have notice served on them, and they all have copies of the laws, and if they accept a shipment from there, they are fined.

Mr. HASKINS. They are not on shipping from one State to another, but on shipping their cattle from one quarantine district into another part of the same State?

Doctor RAMSAY. That is the same thing.

Mr. HASKINS. No. Here I hold in my hand the last decision of the Supreme Court of the United States.

Doctor RAMSAY. The State prosecutes in those cases.

Mr. HASKINS. Yes; the State can.

Doctor RAMSAY. The State can, yes, sir; and the Government

prosecutes at the State lines. They can go out into the State, but within the State the State prosecutes.

Mr. HASKINS. The State can prosecute, but they do not come under our quarantine act of 1903 or 1905.

Mr. LEVER. Mr. Haskins seems familiar with it. Let me ask him a question. General, who established the original quarantine line? How was it established?

Mr. HASKINS. By Secretary Wilson.

Mr. LEVER. Acting under the act of Congress?

Mr. HASKINS. It was not Secretary Wilson, but Secretary Morton, his predecessor, who established it under the act of Congress. This line was established here in the State of Tennessee, and cattle were shipped from south of the line into the State of Kentucky and the railroad company was prosecuted for shipping those into the State of Kentucky, and the court held in this decision, handed down the 17th of last December, that the Secretary could not establish a line within a State, because it operates as intrastate instead of interstate commerce.

Mr. HAUGEN. But this was shipping from Tennessee into Kentucky.

Mr. HASKINS. Yes, sir. It held that that would not apply, because the order of the Secretary would come into conflict with the Constitution.

Mr. HAUGEN. The quarantine line must be on the State line?

Mr. HASKINS. No; not necessarily; but he can not prohibit them from being shipped south of the line to the north of the line within the same State.

Mr. HAUGEN. No.

Mr. FIELD. That is a well-recognized principle.

Mr. LAMB. Yes; that is plain enough.

Mr. HASKINS. He said that the order issued by the Secretary as to the shipment between Kentucky and Tennessee was unconstitutional.

The CHAIRMAN. The order was that you could not ship from one side of the line to the other, whether in one State or another? There are some figures made up lately which show that 25 per cent of the dairy cattle of the North are not self-sustaining. Something over 25 per cent of the dairy cows of this country are not self-sustaining. So look out for your cattle, and get the right kind of cattle there. I only mention that to show you that the South is not the only part of the country that is suffering from bad cattle, and you need not charge the bad cattle to the ticks. There are many other things that are making or unmaking cattle. My authority for that statement is an institute lecturer.

Are there any further questions that the committee would like to ask Doctor Ramsay?

Mr. HAUGEN. You said, Doctor Ramsay, that you had something to do with the eradication of the sheep scab?

Doctor RAMSAY. Yes.

Mr. HAUGEN. In the West. What can you tell us about that? What progress are you making, and how much of it is there?

Doctor RAMSAY. We have got several States practically free from sheep scab. The States of Nebraska, Wyoming, Utah, Idaho, Arizona, and Colorado are practically free. We have a little in the southern part of Colorado yet. Another year will finish that up.

We have still got New Mexico and Nevada and California, Oregon and Washington.

Mr. HAUGEN. You have not got anything east of the Mississippi, have you?

Doctor RAMSAY. Just a little, here and there. Just as it is with the cattle tick; they get a case once in a while out of the yards, that gets away.

The CHAIRMAN. In the case I had, it did not show in the yard. The sheep were dipped regularly, but it broke out.

Doctor RAMSAY. We have some in Wisconsin. It breaks out in spots.

Mr. SCOTT. You have some in Iowa and Minnesota?

Doctor RAMSAY. They will go over and buy feeding sheep, and some will take them through the yards so as to have them dipped and they will be cleaned, but there will be a little infection break out after they get them in the feed lots. In that dry climate the scab seems to lie dormant pretty well, but as soon as they come East or they get a little moisture on them it will flame up. But it does not amount to much in the Eastern States, and it is pretty well eradicated.

The CHAIRMAN. Our farmers recognize it now quickly and apply the remedy.

Doctor RAMSAY. Oh, yes. At the prices they are paying for sheep, and men putting their good hard money into them every day, they are ready to take care of them. You will find that an influence. We have also a lot of work to do next year in Oregon and Nevada and New Mexico. New Mexico is a source of infection.

The CHAIRMAN. Are you working on the cattle mange at all?

Doctor RAMSAY. Yes; we are working on the cattle mange right along. We expect to do some of that next year, if we can.

The CHAIRMAN. There is very little of it, and just in spots.

Doctor RAMSAY. We have been allowing the cattle to be shipped to the market without inspection. I think probably it would be better to have them inspected, and we find the mange spreading among the cattle in the feed lots, and the men who buy the cattle suffer and bear the loss rather than the men who are growing the cattle. It would be better to have a closer inspection of the cattle on the range.

Mr. COLE. The success of that work is dependent upon the co-operation of the States?

Doctor RAMSAY. Yes; we can not do much but watch State lines, unless the States cooperate. If the State cooperates and gives our men State commissions, so that they can go right out and quarantine a bunch of cattle or sheep, it makes it easier; and it is only by holding to the plan we have adopted now in the eradication of the sheep and cattle scab; that is, we first send our inspectors out over the State or a portion of the State, and as a result we find that ten or twenty or fifty thousand of the sheep or cattle in that State, or in certain counties, are infected to the extent that it is going to jeopardize other States if they are allowed to be shipped out. We serve notice on the sheep or cattle sanitary board, or the governors, to the effect that unless active steps are taken to eradicate that disease existing in those certain counties, or the whole State, that we will quarantine the State as a whole.

We can do that. Then it is up to them to clean up the State, and they generally give our men the power, and the sheep or cattle are dipped under the supervision of the Bureau. We have found that to be more successful than under State supervision. The State officials have too many friends and neighbors, and know too many men, to do good work. Their job is always dependent upon whom they will favor, now and then. It has not been a success.

The CHAIRMAN. You find in that case that the State goes right to work and takes care of it?

Doctor RAMSAY. They must go to work; because suppose the State has two counties which have sheep scab to such an extent that it will endanger the other counties, and the adjoining States. We say "Unless you clean up those counties we will quarantine the State." That means a good deal, to quarantine a whole State. The Secretary can do that, if the circumstances are such as would warrant him in doing it.

The CHAIRMAN. The State generally cleans up those counties, then?

Doctor RAMSAY. Yes.

The CHAIRMAN. For the cattle tick?

Doctor RAMSAY. Yes.

The CHAIRMAN. We have quarantined whole States, and they do not seem to care. They have not made an effort, until last year.

Doctor RAMSAY. They are like David Harum says; they have had fleas so long that they don't mind them. [Laughter.]

The CHAIRMAN. That is it, exactly. They have never made an effort to help themselves. They have been under quarantine for twelve years, and have not made an effort, and you just mentioned a case out in the West where you threatened to quarantine them, and they went to work and cleaned up.

Doctor RAMSAY. The people there insist upon it.

The CHAIRMAN. If it was such a material interest in the South, I should think that the people there would insist upon it, too. Instead of doing their own work they come to us. Is not that the way?

Mr. RANDELL. No, sir. The Government has been appropriating lots of money to free the country of the scab in sheep.

The CHAIRMAN. I am just mentioning a case where they threatened to quarantine, only, and the State at once went to work and cleaned up.

Mr. RANDELL. They do not take care of this scab in sheep after the Government has taken care of it, generally. The Government has spent a great deal of money to do that.

The CHAIRMAN. That was not the statement of Doctor Ramsay, was it?

Doctor RAMSAY. No, sir; this was where the country was all scabby; when we had 80 per cent of the bands of sheep in that State with the scab.

The CHAIRMAN. God helps those who help themselves.

Doctor RAMSAY. And the Secretary told them that they would have to stay there and dip them twice under our supervision before they could get out of the State. They took it up with the governor and the board and took immediate action; and in many cases the States do not have money that can be appropriated for such pur-

poses, and for that reason it has always been found that they are willing to cooperate and lend us their laws to work under if the National Government would find the money.

Mr. COLE. How much does it cost the State of Nebraska, for instance, to free itself from the scab? How much of an appropriation did they make?

Doctor RAMSAY. I could not tell. We did nearly all the work there.

Mr. COLE. And furnished the money?

Doctor RAMSAY. Yes, and furnished the money and worked under their laws, and they supplied a lot of men, of course.

Mr. COLE. Are these other States, in the work of the extermination of the tick, supplying a proportionate amount of money for the work?

Doctor RAMSAY. California and Texas are. But the Eastern States I do not think are making much of an appropriation. They are using the money that is actually used for live-stock sanitary work.

Mr. COLE. Do they allow the Federal Government to use their laws?

Doctor RAMSAY. They allow us to use their laws, yes, sir; or they use their laws at our request.

Mr. LAMB. They cooperate beautifully in Virginia.

Doctor RAMSAY. Yes; in Virginia and in North Carolina.

Mr. COLE. Do you know how much money the Federal Government has expended in the work on the scab?

Doctor RAMSAY. All together?

Mr. COLE. Yes.

Doctor RAMSAY. It has been going on about eight years.

Mr. COLE. Do you know how much money has been expended by the Federal Government on that work?

Doctor RAMSAY. No, sir; that appropriation has been mixed up somewhat. We got small appropriations every year, and had to keep within the limits always, and did not do the work that we should have done, and then we took some money that had been appropriated for the eradication of the foot-and-mouth disease, or the extermination of the foot-and-mouth disease, that was left over from that appropriation, and used that in scab work, so that it would be difficult for me to make an estimate.

Mr. HASKINS. That went for the boll weevil, also?

Doctor RAMSAY. Yes; a part of it.

Mr. LEVER. These appropriations have been made from time to time since the Department of Agriculture has been a Department.

Doctor RAMSAY. Yes; appropriations for live stock.

Mr. COLE. Considering the value of the interests involved, has the Federal Government expended as much in the extermination of the tick as in the eradication of the scab?

Doctor RAMSAY. Well, I would not say they had. Of course this quarantine line has been sustained, and it costs a good deal of money to sustain that right along, and keep our men to look after it at the different stock-yard centers; but that has been done in connection with the meat inspection, so that it has not cost so much as it might look like, if we did not have the meat inspection along with it.

The CHAIRMAN. My point is this, Mr. Cole, that if the people of the southern infected States had shown the same disposition to cooperate and to get out of the quarantine as the Western and Northern

States have, they would have cleaned this country up of the tick long ago.

Mr. COLE. The testimony is that all these Western States did was to allow the Government to use their laws, and the Federal Government supplied the appropriations.

Mr. FIELD. That is not true of California and Texas.

Mr. SCOTT. Mr. Ramsay said that he would file with his statement a statement of the amount of expenditures that the States have made.

Doctor RAMSAY. I thought that I had that with me, but I can not find it.

The CHAIRMAN. He is going to furnish the amount that the States have furnished within the last year.

Mr. LEVER. It does not seem to me that this is an important question in any way. It seems to me that it resolves itself into this, does the Federal Government have a right and ought it to do the work? If it is a function of the Federal Government, why should the States cooperate at all?

The CHAIRMAN. That question enters into a great many things that the Agricultural Department is doing.

Mr. LEVER. That is very true.

Mr. SCOTT. I think we are all of the opinion that the cooperation of the State governments is necessary.

Mr. LEVER. It is necessary in so far as providing the machinery of the law by which to cooperate and enforce the Federal quarantine is concerned, that is true; but it is not necessary when it comes to the appropriation of money.

Mr. LAMB. The benefit of this work accrues to all these States. If you stop the tick in South Carolina, you are helping every western and northern State where these cattle can go, incidentally.

The CHAIRMAN. I do not object to it, but I do object where the States do not cooperate and help.

Mr. LAMB. Yes; I agree with you there.

Doctor RAMSAY. I would merely like to say, before I close, that nearly all our requests for getting cattle out of the South, nearly all the requests to waive the quarantine laws, come from the northern men, who want to get some cattle out of the South to feed. They will go to any kind of expense to get those cattle a little cheaper than they can buy other cattle.

Mr. COCKS. That applies to Texas cattle, not to North Carolina cattle. Is not that so?

Doctor RAMSAY. That applies to Texas cattle. Texas cattle will not get fat down there. They can raise a large crop of cattle, but they can not mature the cattle and make beef out of them. They can not raise the calves up north. Probably 55 per cent of the calves die. But if they buy these cattle two years old in Texas and the South and get them up there and keep them a year or two or two years on that northern grass, they make good steers.

Mr. COCKS. Do you not differentiate between the Texas cattle and the cattle from the rest of the South as being an entirely different proposition? The Texas cattle have been graded up.

Doctor RAMSAY. They raise cattle there in large numbers, so that the northern people can buy them there more than they do in other States.

The CHAIRMAN. Do you remember ever seeing the cattle of the cotton States?

Doctor RAMSAY. No, sir.

The CHAIRMAN. You are used to seeing the Texas cattle?

Doctor RAMSAY. Yes; the old-timers.

Mr. SCOTT. Do you know what the percentage of fertility is in the cows in what you call the South, as compared with that of the cows in the North?

Doctor RAMSAY. About 85,000. About 50,000 or 55,000—one-half of the percentage of the calves that they will raise.

Mr. SCOTT. Have the cattle anything to do with it, or is it climatic conditions?

Doctor RAMSAY. Yes, sir; climatic conditions. We have spring storms that wipe out pretty nearly all of our crop of calves up North, and it is the same way with the sheep—a big storm will do the same thing. Down South they do not have the storms and they are safer.

Mr. SCOTT. Is there a greater percentage of births in the South than in the North?

Doctor RAMSAY. Yes, sir; the cattle breed better. They do not have as much sterility in the cows, though.

Mr. SCOTT. Do you think that is a climatic condition?

Doctor RAMSAY. I think that is a climatic condition, too. I do not see any other reason for it.

Mr. LEVER. What reason is there why we should not become a great cattle country down there?

Doctor RAMSAY. No reason at all why you should not become a great cattle country, if you had the cattle.

Mr. LEVER. I want to bring that point out. Is it because we have not got the grass?

Doctor RAMSAY. I would not like to say. I have not gone over the Southern States enough to say. But it looks to me as though you ought to raise cattle there.

The CHAIRMAN. You have not got the grass, and that is a requisite for good cattle.

Mr. LEVER. We have the feeds there to raise good cattle.

The CHAIRMAN. But you are speaking of feeding cattle.

Doctor RAMSAY. They raise some good cattle in Texas where they used to be unable to raise good cattle.

The CHAIRMAN. The calves are dropped there and sold north. They do not keep them there; is that so?

Doctor RAMSAY. Yes, sir; they are sent north.

The CHAIRMAN. They will not grow to much size in that hot country. You can take down there the best shorthorns in the world and feed them as much as you please and they will deteriorate on account of the climate.

Mr. FIELD. You are familiar with conditions in northwest Texas, are you?

The CHAIRMAN. Yes, sir.

Mr. FIELD. And do you say that away out on the plains there no good cattle are raised?

The CHAIRMAN. The best bred cattle in the United States are in the Panhandle of Texas. You can breed them there, but you have got to ship them out of that country when they are calves or yearlings. If they stay there they will not mature properly.

Mr. FIELD. I am not very familiar with how large cattle ought to be, but I have seen some very beautiful herds there.

The CHAIRMAN. Yes; but you will find that almost all those good herds were born in Texas but grown and fed somewhere else. There is a picture here on the wall of a herd of Shorthorns raised in Texas, which took first prize for a herd of fat cattle in 1904. They were raised in the Panhandle of Texas, but were taken from there when they were calves to Ohio and fed by Mr. Black. If they had been kept in Texas they would not have been anywhere near that size, unless they had gotten the feed.

Mr. FIELD. We know that cattle can be increased in size by sending them farther north; but there are very fine cattle raised in Texas.

The CHAIRMAN. They are not grown on the ranges there. There is more good blood in Texas than in any other State in the Union. But unless you change your mode of feeding and growing them, you do not get the size, because they pretty nearly starve to death on the ranges in the winter time. The growers of Texas are selling them to be matured by the feeders in the north.

**STATEMENT OF HON. JOSEPH E. RANDELL, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF LOUISIANA.**

Mr. RANDELL. Mr. Chairman and gentlemen, I introduced a bill the other day to provide for an appropriation of \$250,000, which the Secretary asks, for carrying on this great work. I had no idea that there would be a hearing to-day, or I should have come here armed with a few statistics and facts which I think would interest you gentlemen somewhat. I desire to say as a Representative of Louisiana and that section of the South, that although we have not done our full duty in the past, Mr. Chairman, we are in earnest now, and we are ready to do our part, and we do not want the General Government to help us unless we are ready to help ourselves.

In Louisiana and every part of the South, so far as I know, we are willing to put up a dollar for every dollar that you put up. We have put up a good deal more than \$1 for every dollar that the National Government has put up in carrying on this fight in the past, and Louisiana at least is willing to carry on that same policy, and I believe that I voice the sentiment of the South when I say that every one of the other States is willing to do the same. Now, the cattle-tick quarantine was not established for the benefit or the protection of the Southern States. It was to protect the northern part of this country against the disease-bearing cattle from the Southern States. So every dollar expended by the National Government so far in investigating this subject and in guarding the quarantine has been for the benefit not of the South, but for that portion of the Union north of the line. The people of the South did not need that quarantine line. They had ticks in every direction—everywhere—so that it was not put there for them.

Do not charge up to the South \$1 of the expenditure of the Government for maintaining this quarantine. All we have received was the appropriation of \$82,500, which was made last year. That sum was for the purpose of eradicating the cattle tick from the South. But all expenditures theretofore were for the protection of that portion of the United States north of the line. I think it is well to bear that in mind in carrying on this discussion.

Now, gentlemen, I wish to present this to you as a business proposition. The Agricultural Department says that if you can eradicate the ticks from the South there will be a saving to the South, and hence to the nation, of fully \$60,000,000 a year, and no one who will read the bulletin upon that subject can doubt it. I had this all at my fingers' ends a year ago, but I have not read it since. Anyone who will read that bulletin, which you can get from the Agricultural Department, will become convinced that \$60,000,000 a year is a very conservative estimate. It is estimated by our home agriculturists and scientists that it has cost the South \$100,000,000 a year, and I firmly believe that that estimate is correct.

Assume that the estimate of \$60,000,000 is true; is not that a loss to the nation of \$60,000,000? You do not have any politics or sections in this committee; I thank God for that. That word is never allowed in your committee room. The South is part of the United States, and if the South saves \$60,000,000 the nation saves \$60,000,000. If that can be saved for a very small sum of money, then ought it not be done?

Now, sir, if the great Secretary of Agriculture—and I use the word "great" advisedly, because there is no single officer of the Government who gets nearer to the plain people—the farmers—and who benefits the plain people more than the Secretary of Agriculture—tells us that he needs \$250,000 a year to carry on this work, ought we not to give it to him? He has not done this unadvisedly.

He started this in a conservative way. He asked us last year for \$25,000, and then after investigating he asked for \$100,000, and we gave him \$82,500. He has carried on this work in a businesslike, systematic way, and as a result of that systematic and businesslike way of carrying on this work he says that he needs \$250,000, and can use it. Now, if he can do it for ten times \$250,000, Mr. Chairman, would it not be wise to expend \$2,500,000 in eradicating this tick, since by spending that sum we would be saving the nation \$60,000,000 every year? Suppose, sirs, that you could invest \$2,500,000 and thereby make \$60,000,000 a year for all time, would it not be a splendid investment?

I do not know that we are going to save that sum, but I firmly believe, sirs, that we will save more. I believe there is more in this cattle tick than meets the eye; more than you gentlemen think. I believe that the cattle industry in the South is absolutely necessary to the farming industry and success of the South. You gentlemen have had a great deal said to you about the cotton boll weevil. Now, the cotton boll weevil is in the South to stay, and it has rendered necessary a different kind of agriculture in the South from what we ever had before. We have conducted our farming in a desultory, careless way. We had no notion of the meaning of the words "intensive farming" in the South until the cotton boll weevil came. There are many lands where we used to make 200, 300, or 400 pounds of lint cotton per acre, on which, because of the boll weevil, we have been obliged to take up intensive farming, and on which we now make 600 to 1,000 pounds of lint cotton per acre. What does that mean? It means that we have got to intensify our farming. It means fertilization. It means putting humus in the soil, and turning a good deal of land out to grass. It means that you have got to

put cattle on the ground. It means that the cattle have got to come there in order to put humus in the land.

Plant less land in cotton; graze your land, and make that land more fertile, and you will make more cotton. And all of you wear cotton. There is not a man in this room who is not wearing cotton now, and you are giving a big price for it. All of you are interested in cheaper cotton, and if you are interested in that you are interested in something that will enable us to make cotton cheaper, and if you will eradicate the cattle tick and make the cattle industry an important part of the southern agricultural business, we will raise cheaper cotton. It is an absolutely essential part of the cotton industry to raise cattle. The two must go together. We people in the cotton portions of the South insist that we must have this tick eradicated in order to carry on the cattle-raising business.

I had a very strong letter sent to me by Mr. August Mayer, of Shreveport, and I wish to file that with this committee as a part of my remarks. He sent me samples of cotton raised on this intensive method, with the results of his experiments annexed.

I wish to file them with you. You will see that cattle raising must go along with cotton raising wherever we have the boll weevil. Now, we can not get rid of the cotton boll weevil. He is with us to stay. But we can cultivate the ground in a way to make it profitable in spite of him if we can intensify our farming and raise cattle along with other crops.

On this subject of intensive farming I do not believe the American people have given sufficient thought. Pardon a slight digression, but I was very much interested by a speech of James J. Hill, recently made at St. Paul, in which he said that if somebody would devise a means by which the people of the United States could make two or three hundred million dollars a year out of something dug out of the mines of the country, it would be regarded as of wonderful benefit to the nation, and its discoverer a great public benefactor. He says the wheat crop brings now about \$600,000,000 a year, and the average yield is $14\frac{1}{2}$ bushels per acre.

Then he goes on and discusses the methods in use in Great Britain, where they get 30 bushels an acre; in France and Germany, where, by better farming, they get 40 bushels to the acre, and then the best methods prevalent in Belgium and the island of Jersey, where they get 50 to 60 bushels. His conclusion is that if we could adopt the comparatively primitive methods of Great Britain and raise twice as much wheat as now—that is, 30 bushels, instead of $14\frac{1}{2}$ per acre—we would receive \$600,000,000 a year more than we now get. Now, I appeal to you as a representative of the entire South to help us intensify our farming by helping us to raise cattle there. We can not raise them now. We can not import your fine bulls and cows from the North, which are necessary to make cattle raising profitable to us. We want to do that along with our sugar and cotton industries, and along with the other kinds of farming that we have.

Mr. SCOTT. Pardon me for interrupting you. I think there is no disposition on the part of the committee to cut out this appropriation. The only question which the committee will have to determine, I think, will be the amount of the appropriation to be made.

Mr. RANSDELL. Yes, sir.

Mr. SCOTT. And, with that idea in mind, I would like to ask your judgment as to whether a lesser amount, say \$100,000, if concentrated in a comparatively limited area, might not bring better results, greater aggregate results, than \$200,000 or \$250,000 spread out along the entire quarantine line?

Mr. RANDELL. In reply to that, Mr. Scott, I would say that we have a pretty wise man at the head of the Agricultural Department, and I should give him what money he asks for and not restrict him in the use of it. In the practical application of that money I believe to a great extent I would follow the methods suggested by him.

I would try to spend a good deal of the money in the communities most willing to help themselves. I know on the Mississippi River where I live we spend a good deal of money on levees, and the policy of the Government has been to help those communities who help themselves to build their levees, and who are willing to put up about \$2 for \$1 that Uncle Sam puts up. So that if you find a community where the people are willing to cooperate vigorously and pay a larger part of the cost, I believe a greater part of the money should be spent there, and I believe Secretary Wilson will spend it there if he is entirely unhampered in the manner of expending this appropriation. But I do think that some kind of educational work should be carried on in other communities. Now let me illustrate. In my own State we have in southwestern Louisiana about 9,000 square miles (and I want to say that we raise a great many cattle there, too) which is free from the tick.

There is fine grass there, and there are about 9,000 square miles where the agriculturalists say there are no ticks. They say, and Doctor Melvin corroborated it last year, that that area might very well be quarantined, that the State might put a quarantine around it, and with some little restriction from the Government the cattle from that particular 9,000 square miles might be shipped north in carefully prepared cars. Now, I think a little work of that kind might be done, if you find a community that is willing to do it. Mind you, Louisiana is away below the quarantine line and we can not expect to reach there for several years, and we would like to have a little experimental work done there as soon as the State gets ready.

If the condition is as stated by the agriculturists of Louisiana, I say that would be a good chance to cooperate with us, and wherever we find communities willing to cooperate in extending the circle of the quarantine area I believe that should be done. I do not believe that I can add anything to what has been said.

I sincerely hope that you will find yourselves free to make this appropriation. Do not, for Heaven's sake, be penny wise and pound foolish about a thing like this. It is a tremendous stretch across from the Pacific to the Atlantic, and \$250,000 is not much. When my friend, the General, had the foot-and-mouth disease up in his country—New England—some years ago, we did not hesitate to give them \$500,000 to stamp it out. Now, the Secretary of Agriculture is going to spend this money carefully. Only a part of the appropriation for the foot-and-mouth disease was spent on it, and the boll weevil got the rest of it, did it not?

Mr. HASKINS. Yes, sir; I believe so.

Mr. RANDELL. The Secretary told you last year that he needed \$100,000 and you gave him \$82,500, and I believe that he spent it

wisely. And now for Heaven's sake do not hamper him, but give him the amount that he says is necessary.

The CHAIRMAN. On what facts and figures is that estimate of \$60,000,000 based? That is 3,000,000 cattle at \$20 apiece.

Mr. RANDELL. They tell me that the cattle brought from the South to the quarantine line and sold lose from a quarter to half a cent a pound in value. Some one swore that in a little town in Georgia there were two beeves; they were brothers, and weighed exactly the same. One was matured south of the quarantine line, and the other was matured north of the quarantine line, and he says the one south of the quarantine line brought \$5 less than the one north of the line. Captain Lamb testified at that time that he had seen them sold frequently in Virginia, and animals half a mile south of the line brought a quarter to half a cent a pound less. Professor Morgan testified that every cow in the South loses an average of 1 quart of milk per day because of the cattle tick. She loses so much blood that the milk is not as nutritious as it should be, and in actual quantity the loss is 1 quart per day. He testified that the average full-grown animal in the South loses between 600 and 700 pounds of blood every year because of the cattle tick.

He and Mr. August Mayer both testified that the cattle of the South go into the winter season so run down, and with their blood so watery and so weak at the beginning of the winter because of the cattle tick, that they do not weather the storms of the winter. They die in immense numbers. I have seen them very often, poor, miserable, scrawny little blasts, that do not look like they were fit to eat. I want to tell you that the only time in my life that I was ever ashamed of being a Louisianian was once when I was in Kansas City, and I was going around those cattle yards, a most interesting sight; thousands and thousands of beautiful cattle in those great pens, which you gentlemen have often seen. Finally we came to a little herd of the scrawniest, roughest, raggedest little beasts I ever saw. We were walking along on the plank on the top of the partition fence between the pens. I said to the guide, "Where do those cattle come from?" "Louisiana," said he. "Oh, no, my friend," said I, "I am a Louisianian, and we have no such cattle there." He said, "But I am not joking with you; they do come from Louisiana, and I tell you the worst cattle in this country come from Louisiana and Arkansas."

I would have been glad to have a hole open in the earth and let me through about that time, because there were several gentlemen in the party. But it is not because the sun does not shine as bright and warm in Louisiana as in the other parts of the country, or because the grass does not grow as well or taste as sweet, but it is because of these vile little cattle ticks, which are on every single bovine animal in that State. Oh, yes, Mr. Candler, Mississippi is in the same fix. Every one in the State has ticks on them, and they poison them from the time of their birth. They do not grow up as they should. An animal that loses 600 or 700 pounds of blood a year does not thrive. Think of a cow that fails by 1 quart a day to produce her proper quantity of milk through no fault or her own and her master. Can such a cow maintain her growth or feed her young properly? No, sir; she can not do it. This may be a little exaggerated, but these are the statements of reputable agriculturalists, and I believe they are

correct. The Agricultural Department says we lose \$60,000,000 a year, and August Mayer says fully \$100,000,000 a year on the cattle we have now.

But is that a fair way to figure the loss? No, sir; you should figure the loss on the cattle we might have, on the profits we might make out of that great industry. Your chairman here is in the cattle industry. We have the cotton meal and things of that kind to feed them on. We can raise two or three crops of sorghum a year. You can not do that in New York, but we can do it in Louisiana. We can raise any quantity of foodstuffs for our cattle. Give us a chance, when we get ready, and let us see what we can do.

The CHAIRMAN. Can not the farmer get rid of the tick on his own farm?

Mr. RANSELL. No, sir; he can not, because if he rids his own farm his neighbor's farm is full of ticks.

The CHAIRMAN. As I understand, Doctor Ramsay is proposing to quarantine a little place there that they think is free from ticks.

Mr. RANSELL. Three or four counties—draw a line around that area.

The CHAIRMAN. It was shown here by the entomologist that this tick climbs up on a blade of grass and from there gets off on the animal that comes to him. He would stay on the blade of grass and die unless the bullock comes there and gives him a chance to get on. He stated that that was the life history of the animal.

Mr. RANSELL. That is true, too.

The CHAIRMAN. If that is true, and you have no fences in that country, how would you stamp the tick out?

Rr. RANSELL. Possibly if you had a good fence you might keep it out of a farm; but do you not know that having two or three counties without ticks in them, quarantined by officials of the Government, is a very different thing from having your own farm so quarantined that an ambitious neighboring bull can not jump over the fence, for instance?

The CHAIRMAN. I know that bulls are mighty ambitious.

Mr. RANSELL. They are; and it is hard to keep them away, gentlemen; it is a mighty difficult thing to keep them away. It is one thing to have a farm and try to keep it clear of ticks and another thing to have a big area like this. As I told you, in Louisiana we have 9,000 square miles already free of ticks. In an area of that size interior work is feasible, although I do not lay so much stress on the interior work. I think, with you, that the main effort should be to push the line down from the north, and I am making no effort, as I told you, to get this money spent in Louisiana. I want to see the work go on, knowing that in a few years we are going to reach Louisiana. I thank you, gentlemen, for your attention.

Hon. JOS. E. RANSELL.

House of Representatives, Washington, D. C.

MY DEAR SIR: Permit me to congratulate you, as the sponsor of the recent tick legislation, upon the showing made by the Agricultural Department in the work of the eradication of the fever tick from our country. The wisdom of the action of the Congress in making an initiatory appropriation at its last session for this great work is quite apparent from the annual report of the Secretary of Agriculture, as it is also from personal observation, to those living within the affected territory who have taken an active interest in this momentous movement against perhaps the greatest pest to American agriculture. I dare

say that the interest aroused among southern agriculturists and stockmen particularly, and to a great extent the people generally, in this new work has surprised even the most sanguine of those responsible for the war against this tick. The short campaign of only a few months' duration conducted by the Department of Agriculture, and with only very limited means at its command, has proven that the work authorized by Congress was well timed, and that the greatest good may be expected from continued and larger agitation and practical work under the direction of the Agricultural Department. It needs only the cordial support of Congress for several years and the National Department of Agriculture, with cooperation of the several infected States, and we will drive this costly pest from our continent.

I have on former occasions by speech and by writing shown the enormous benefit to be derived from the eradication of the cattle tick. In those utterances I have chiefly dwelled on the subject from the standpoint of the husbandman. But there is a feature to it that has not been extensively mentioned as yet, and with which I, as a cotton grower, am much more largely concerned than as a producer of live stock. Indeed, for the southern United States this view of the matter to which I wish now to call your special attention is much more important and far-reaching than all others, and I present this feature to you now, with the hope that you will lay it before your fellow-Members of Congress in support of your bill supplying the Secretary of Agriculture with the funds he asks at the present session for tick eradication.

The point which I wish to make clear and bring prominently to your attention is this: That the eradication of the cattle tick is a necessity in order to maintain the future undisputed supremacy of the United States in the production of cotton.

I will say that at the present and in the immediate future the cattle tick as an indirect enemy to the cotton industry exceeds in importance the muchly and justly dreaded boll weevil; and that as an enemy to the cotton industry the cattle tick constitutes from now on until it is eradicated from the cotton-producing States a more important factor in our national economy than it does directly as a deterrent in the production of live stock, notwithstanding the enormity of the damage caused by it in the latter rôle.

The chief industry of the southern United States should and must forever be the production of cotton, for more than one reason.

First. Among all known lands ours seems best suited to the growing of this one great world necessity.

Second. It is the product which makes foreign countries yearly our debtors in the interchange of goods.

Third. Cotton, among all products of the earth brought forth directly by the soil, is the one most ideally adapted for a country's export, because by the exportation of the cotton fiber we do not rob our soil of any appreciable amount of fertility, which can not be said of any other exported product of the soil. The sending abroad of our surplus cotton is therefore all gain. The energy of our agriculturists ought, therefore, to be persistently directed to the growing of cotton as their main crop. This should be the policy of our Government. We should never permit our supremacy in this field to be put under a cloud for a moment. The fear occasioned recently by the advent of the boll weevil in our country that the United States would in the near future, or sooner or later, be incapable of furnishing what cotton the foreign spinners need has caused greater activity in foreign lands to grow the crop which is America's greatest export and to which is due our country's healthy bank account in those foreign countries. This fear should be dispelled once and for all to hold what we have for all time. How can we do it? I say, eradicate the cattle tick!

Why so? The boll weevil is here to stay, as far as we can see at present. By research and experiment it has been demonstrated that under certain conditions the boll weevil need not interfere with the successful growing of cotton. On the contrary, we have lately frequently seen greater yields of cotton in boll-weevil-infected territory than ever before. This was in many instances not accidental or due to natural causes, but to the artificial conditions created by man—in this instance by the farmer. What are these conditions? I will enumerate them in the order of their importance, as was shown by my own experiments, as well as those of others, to wit:

First. The preparation and the mechanical condition of the soil before planting.

Second. The proper fertility of the soil.

Third. Proper, rapid cultivation after planting.

Fourth. The proper variety of seed.

As will be seen, the preparation of the soil, the seed bed, before planting, is the most important feature in the successful raising of cotton. The proper preparation of the soil, its physical condition, for the reception of the seed, and thereafter the growing of the cotton plant, is very largely dependent on the humus contained in the soil. If the soil has been deprived of this vegetable substance it is very nearly sterile and valueless as a producer of crops. Fields continually planted in one crop will eventually have no humus left in them (and thus become profitless to the farmer) unless the necessary humus is regularly restored by fertilization and rotation of crops. No fertilization is equal to that brought about by the use of stable manure or that due to the feed lot.

It will restore the soil better than any other fertilizer, especially if rotation of crops is practiced also. To secure, therefore, the greatest requisite to successful cotton planting, i. e., perfect preparation of soil and favorable soil conditions, we should have fertilization with stable manure. To have stable manure we must have live stock, especially cattle, to utilize to the fullest our cotton seed and the roughage produced by a soil-conserving agriculture. To have cattle we must be rid of the parasitic fever tick. And, conversely, if we are rid of this tick we will have cattle, and thence stable manure, and also rotation of crops, as a live-stock industry has this in its wake. And, consequently, we will have the foremost requisites for the successful cultivation of cotton—that is to say, a friable, rich soil, warm early in spring, moisture-retaining during drought, stimulating to plant growth throughout the growing season—in other words, all the foremost essentials to the growing of a profitable cotton crop in a boll-weevil-affected country. I assert that with the thorough preparation of such a soil as soon as the seed is intrusted to it half of the crop is made and 75 per cent of the ordinary risk of crop production is overcome.

The second essential in the successful culture of cotton (in a weevil-infected territory) is the proper fertility of the soil.

It is quite a mooted question as yet in how far chemical fertilizers do contribute to soil improvement, especially if used alone for a long period of time. Aside from the objectionable feature of great cost, chemical fertilizer must also be objected to in that it does not restore humus, i. e., life, to the soil. To properly fertilize the soil so as to bring about the second most necessary feature for the successful production of cotton in the weevil-infected country we must have a healthy live-stock industry, chiefly cattle.

With soil preparation and fertilization with stable manure, to have a seed bed as nearly perfect as possible, and practicing crop rotation, the yield of cotton per acre can be very greatly increased with the boll weevil present. It can be doubled over the yields of former years by all, trebled by many, and even quadrupled by the few more expert and more intelligent. My own experiments have led to these conclusions, as will be apparent to you by examining the accompanying photographs and the notations thereon.

In other words, I wish to state in the most emphatic terms that, comprehensively viewed, the eradication of the Texas fever cattle tick will more than offset the invasion of the boll weevil concerning the production of cotton.

Rid our country of the tick, a live-stock industry will follow in the cotton-growing States as a subsidiary industry. We will rotate our crops, and we will grow cotton right. We will grow cotton in quantities to suit the demand of the world. No one need thereafter ever fear that the United States will not be able to furnish what cotton the world needs. We are good for 30,000,000 bales on half the land now in cotton culture, provided we are rid of the cattle tick!

America's greatest export need not be put in jeopardy ever if we exterminate the cattle tick. The extermination of the Texas fever cattle tick will be notice to all the world that we will have no competitors in the cotton-producing industry. Our bank account in foreign countries will swell to greater proportions from year to year, due to the ever-increasing exportation of cotton; this, of course, provided the cattle tick is driven from our country.

Rid our fair land of this tick, then the South will be a cotton country greater than ever—a country of plenty such as the world has never seen.

Cotton should and will forever remain our chief crop. It is the ideal crop for the South. It is the ideal crop for a country's export. Its continued exportation will only make our country richer with every year. For if we should send 20,000,000 bales of cotton—pure cellulose—abroad each season, equivalent to ten thousand million pounds, or on a still greater scale, we would not send along

with it enough of our soil fertility to decrease our yield any for a thousand years to come. But our ships would return with the foreigners' gold to the tune of \$1,000,000,000 per year; all this and much more, only provided we exterminate the cattle tick.

To maintain our cotton industry in its supremacy is but the soundest statesmanship. To keep the cotton crop at its supremacy in the Southern United States is statesmanship equally renowned. To maintain and ever increase our cotton exports should be our Government's never-failing policy. Such aim will make us permanently the creditor nation of the world. To export cotton—cellulose—is truly a country's ideal business with foreign peoples, for there is connected with it no loss—all is gain.

Eradicate the cattle tick.

Sincerely, yours,

AUG. MAYER.

SHREVEPORT, LA., *December 22, 1906.*

I.

PREPARATION OF SOIL PRIOR TO PLANTING AND SOIL-FERTILITY EXPERIMENT.

[Made by Aug. Mayer, Shreveport, La., 1906.]

The soil, of good and proper fertility, was prepared as if to receive small garden seed. No cultivation was given the cotton except keeping the weeds and grass down by "flat-weeding" with hoe. Cotton was planted April 16; was up April 23. Made full crop in one hundred days from planting. Boll weevils, appearing thickly in August, could do no damage. Bolls began to open August 3, one hundred and nine days from planting. Bolls were all open by September 15. Yield of stalk No. 1 (on exhibition), 4½ ounces of lint, equivalent to 800 pounds of lint per acre. Staple, 1½ inches; 35 per cent lint to seed cotton.

II.

PREPARATION OF SOIL PRIOR TO PLANTING AND SOIL-FERTILITY EXPERIMENT.

[Made by Aug. Mayer, Shreveport, La., 1906.]

The soil, of good and proper fertility, was prepared as if to receive small garden seed. No cultivation was given the cotton except keeping the weeds and grass down by "flat-weeding" with hoe. Cotton was planted April 16; was up April 23. Made full crop in one hundred days from planting. Boll weevils, appearing thickly in August, could do no damage. Bolls began to open August 3, one hundred and nine days from planting. Bolls were all open by September 30. Yield of stalk No. 2 (on exhibition), 6 ounces of lint, equivalent to 1,125 pounds of lint per acre. Staple, 1½ inches; 30 per cent lint to seed cotton.

STABLE-MANURE FERTILIZATION.

Early maturing New Hope cotton, storm proof.—Yield of stalk No. 1, 2 pounds 1 ounce seed cotton, equivalent to 1,850 pounds of lint per acre. Boll weevils present.

Raised in Red River Valley by Aug. Mayer, of Shreveport, La.

Record, season 1906.—Planted April 19; August 15 counted 141 grown bolls, several open; age, one hundred and eighteen days from planting. August 15, broke off accidentally upper third of stalk with 28 half-grown bolls on (mostly dropping off later). Stalk, with cotton on, exposed to weather to October 13, none falling out. A number of bolls on split-off branches were lost by rotting on the ground. Seed cotton picked off stalk October 13, 2 pounds 1 ounce. This cotton has exhibited the remarkable quality of putting on two or more bolls to the joint.

B. S. cotton.—Originated and bred by Aug. Mayer, Shreveport, La., in the Red River Valley of Louisiana. Boll weevils present. Yield of "hill," 2½ pounds seed cotton, equivalent to over 7,000 pounds seed cotton, or 2,000 pounds of lint, per acre.

	Number of days from date of planting.
Planted April 16.....	0
Coming up April 23.....	7
Grown bolls, estimated to yield 1 bale per acre, July 25.....	100
Bolls begin to open August 3.....	109
93 grown bolls counted on stalk No. 1 August 8.....	114
Picked first cotton off stalk tagged No. 1 August 8.....	114
Picked off stalk No. 1, 40 bolls, yielding 10 ounces seed cotton to date, August 24.....	130
83 per cent of bolls on stalk No. 1, open; picked therefrom 18 ounces seed cotton to date, September 8.....	147

Final yield of stalk No. 1. 22 ounces of seed cotton, equivalent to more than 4,000 pounds per acre. Yield of plat at rate of $1\frac{1}{4}$ bales per acre. Stalk stood much too thick or yield would have been greater. B. S. cotton is storm proof. Staple $1\frac{1}{8}$ inches full. Fiber strong.

(At 5 o'clock p. m. the committee adjourned.)

COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES,
January 11, 1907.

The committee met at 10.30 o'clock a. m., Hon. J. W. Wadsworth in the chair.

BUREAU OF ENTOMOLOGY.

The CHAIRMAN. Gentlemen, we asked Doctor Howard to come before us this morning, but he is in Massachusetts on the gypsy-moth business, so two gentlemen who are assistants of his, Mr. Marlatt and Mr. Hunter, are here in his stead.

We will hear from either one of you gentlemen. Mr. Marlatt, you have charge of the gypsy-moth business principally, I believe?

Mr. MARLATT. Mr. Chairman, I am assistant chief of the office, and am second in charge of all the work under the Entomologist. Mr. Hunter has the particular charge of the boll weevil work, and I would like to have him speak on that subject.

STATEMENT OF W. D. HUNTER, BUREAU OF ENTOMOLOGY.

The CHAIRMAN. We will hear Mr. Hunter first, on what work has been done on the boll weevil, and you [Mr. Marlatt] can tell us afterwards what work has been done on the gypsy-moth business.

Mr. HUNTER. Mr. Chairman, I suppose what the committee would like to hear is what has been accomplished?

The CHAIRMAN. The actual progress you have made since last year toward at least restraining the damages done by the cotton boll weevil.

Mr. HUNTER. One of the most conspicuous features of new information we have is in relation to the parasites of the boll weevil. A year ago, when Doctor Howard appeared before the committee, he explained that the nicest way of controlling injurious insects is to reestablish the equilibrium of nature and set the parasites to work.

The parasites of other insects are the factors that reduce the outbreaks of caterpillars and one thing and another in different parts

of the country. The boll weevil, being a new insect making its way across the cotton belt of this country, far from its native home, had gotten away from those influences that nature has provided to hold it in check. As I say, Doctor Howard made the statement last year that there was very little hope at that time for assistance from these parasites.

During the past year, however, we have information that shows an entirely different view of the situation. In Texas there are a number of insects related to the cotton boll weevil, and there are natural parasites of these different related species of weevils. Now we find, all of a sudden, that these parasites of other related insects are beginning to transfer their attention to the weevil. These other weevils sometimes live in weeds and flowers of various kinds that grow in the vicinity of cotton fields and on the prairies. Now that there is a much greater abundance of boll-weevil food for them than of their natural food, since they are not very closely restricted to such hosts, they have transferred their attention to the boll weevil. In one case, at Waco, in the Brazos Valley, we found that as high a percentage as 40 of all the immature stages of the weevil in the cotton fields had been destroyed by these parasites.

The first thing we did when we began to see the full bearings of this parasite matter was to make a general survey of the infested area in Texas and Louisiana, and find out exactly what the status of the parasites was. Accordingly we made examinations at different times through the season at fifteen or twenty localities scattered all the way through the infested area. Large numbers of infested squares and bolls were selected in different situations within these different regions that I have mentioned, and the basis of our present knowledge is the examination of those squares and bolls that was made in the laboratory.

We now know exactly what parasites are at work. We know that in one region in southwest Texas there is one particular kind of parasite, in central Texas another one, and in eastern Texas still another. In Louisiana, over the infested area, several distinct parasites, different from those that have begun operations elsewhere, are just beginning to devote their attention to the weevil; and in that fact we have one of the most hopeful views of the situation.

In illustration of the attempts we have made to make some practical application of this knowledge, at Dallas we had a 60-acre field of experimental cotton, and found that there were very few parasites attacking the weevil in that field. Down at Waco, 100 miles away, however, we found a very high percentage of parasitism of the weevil. So we sent a couple of men to Waco to obtain parasites from that field. They obtained large numbers of parasites and brought them to Dallas in cages, and liberated them in this comparatively uninfested field of ours. Just before this a careful examination was made, and we determined exactly what the parasites in that field were and exactly what they were doing. Then the liberation was made, and at frequent intervals after that examinations were made to determine exactly the effect of this liberation. We were really astounded to find the effect that had been accomplished. While before this liberation there was a rate of parasitism of only 5 or 6 per cent, in two weeks from this liberation of several

hundreds of parasites in one portion of the field the percentage had run up to over 20.

That illustrates, we believe, what can be done in a practical way in merely assisting nature to reestablish the equilibrium. The weevil has been there long enough so that it has reached a certain degree of stability in habits. These parasites are ready and provided by nature. Their function in nature is to check such insects as the weevil. What little we can do, like taking parasites from one quarter and liberating them in other quarters where they are absent, is exactly in the line of what nature provides should be done.

Mr. HENRY. Have you abandoned your experiments with Guatemalan ants?

Mr. HUNTER. Yes; after two seasons it was found the ants could not withstand the conditions in this country, and could not do for the cotton up here what it has been found to do in Guatemala.

Mr. FIELD. I wish in that connection you would give some description of that parasite, especially the ones found about Waco.

Mr. HUNTER. There are 15 or 20 different kinds of these parasites. They are minute-winged insects provided with a long ovipositor.

Mr. FIELD. It is sometimes called the "sharp-shooter" there?

Mr. HUNTER. No; it is an entirely different insect, much smaller than the sharp-shooter. They have the natural instinct of placing their eggs upon the bodies of other insects. When the egg hatches the larva of the parasite bores into the weevil (in this case), and later instead of a boll weevil emerging from the cotton plant, we have one or more different parasites which immediately after breeding begin to look after their weevil food upon which to place their eggs.

Mr. FIELD. Does it destroy the weevil in its embryo state?

Mr. HUNTER. In the immature state. It is not in the adult state. These little parasites average less than an eighth of an inch in length. They feel around over cotton squares or bolls until they find one that has a weevil inside. Through some sense they are able to determine whether there is a weevil inside, in many cases where the puncture made by the weevil in depositing the egg has become so healed over that we can not discover it ourselves except by the use of a microscope. Probably the movement of the larva inside there lets the parasite know what is inside.

This parasite then inserts its ovipositor in many cases through the healthy tissues of the square or boll and deposits its egg upon the larva of the boll weevil inside.

As I say, there are 15 or 20 different species of parasites of this kind, very obscure, minute insects which ordinarily would attract very little attention.

Mr. SCOTT. When the egg is deposited, does it mean sure death to the weevil?

Mr. HUNTER. Certain death to the weevil. When the development of the weevil has gone along very near to the end and it becomes parasitized, in some cases then an adult weevil does emerge, but it is weakened and aborted in such a way that it does not amount to very much as a weevil.

The other practical point relating to parasite work that I had in mind is this: In the process of the examination of hundreds of cotton fields and hundreds of thousands of infested squares and bolls all

over Texas, we found that certain squares from certain regions and certain kinds of squares were much more heavily parasitized than others. Ordinarily when the cotton square is stung by the weevil, it falls to the ground, but certain varieties of cotton do not shed their squares as readily as others, and certain conditions of soil and certain conditions of climate cause the cotton plant to hold squares on the plant rather than to let them fall. We found at Waco, for instance, that on these squares hanging on the plants the very highest rate of parasitism was to be found.

In one case as high as 40 per cent of these immature stages in the hanging squares was found, while in the same field the squares on the ground showed a much smaller rate of parasitism. Of course, the conclusion from that observation, which was substantiated in other places subsequently, was that the parties engaged in plant breeding in another bureau of the Department should, if they desire to assist this natural course of events, devote their attention to breeding a variety of cotton that would have the tendency to hold these squares instead of letting them fall to the ground.

Mr. FIELD. Doctor, is not the effect upon the square, when punctured by the weevil, that it destroys the vitality of the cluster in one instance and not in another? It is like a leaf when the sap is destroyed.

Mr. HUNTER. Yes; it is a very mysterious thing. Some varieties of cotton have a thicker bark, and in those cases there is more opportunity for the square to hang than in case of varieties with a thinner bark.

Mr. FIELD. What varieties of cotton? Take the early varieties, the King and Hall, and all those kindred early cottons, and the big-boll Russell, an old cotton. In which character of cotton do you find a greater tendency to retain that punctured square?

Mr. HUNTER. In general we find the greatest tendency in those varieties that have gone out of style a great deal at the present date. The short-stem cluster varieties of cotton, like the old Dixon, that used to be planted a great deal in Alabama.

Mr. FIELD. Is it not true that in those old cottons there was a stronger tendency not only to hold the square but to hold the fruit?

Mr. HUNTER. That is very true, indeed, because the recent tendency in improving varieties of cotton has been only toward productiveness.

Mr. FIELD. The old varieties are being generally rejected as not being sufficiently prolific or early maturing?

Mr. HUNTER. They have, but the boll weevil has altered conditions so much in Texas and Louisiana that planters are now looking back to some of those varieties for assistance. Some experiments show that very good results are going to be obtained.

Mr. SCOTT. Does your experience of the past season, then, give you some reason to hope that the parasite may overtake the boll weevil and eventually rid the country of it?

Mr. HUNTER. We see no reason why these parasites may not have the effect of reducing the weevil's numbers, so that it will not be anywhere near the important factor that it is at the present time. It is beyond the probabilities to expect that they will result in the extermination of the weevil, but for that matter no injurious insect

ever was completely exterminated. It would satisfy the desires of southern cotton planters if the weevil should be restrained by these parasites, even if it were not exterminated.

Mr. SCOTT. None of the parasites has been shown to be in itself injurious?

Mr. HUNTER. No; they are restricted to this habit of feeding in immature stages upon other insects.

Mr. COLE. The fully developed parasite has no other function to perform besides reproduction?

Mr. HUNTER. They take very little food. What food they do take is largely from the pollen of flowers, and in fact none of them throughout the world are known to be injurious to vegetation.

A good many of the same lines of work we have followed previously were conducted by us last year. For instance, there is a constant demand for information regarding how far the weevil has gone, what new regions it is getting into, and how soon it is going to get to some other region. The weevil now extends a distance north and south of nearly 600 miles and over 500 miles east and west. From that area there was, during last season, a migration or dispersion that covered a belt from 10 to 60 miles. The people in the region that is being invaded and the people just beyond are anxious to know how rapidly the weevil is reaching them, how soon they will have to regulate their cropping systems to continue when it does begin its damage. Consequently it has been necessary for us to make examinations, follow this dispersion, and publish maps and pamphlets from time to time indicating what advance has been made. That is a regular line of work that has been carried on for several years, and undoubtedly should be continued.

Another line of work that we have followed, which is one of the old lines conducted for several years, is the testing of remedies proposed from time to time. I made the statement before this committee last year that hundreds of people in various parts of the world are proposing remedies for the boll weevil. We are of the opinion that these remedies should be tested. Many of them can be rejected because of what we know about the life history and habits of the weevil, but at the same time there is no telling when some man may hit upon a good substance in the way of a spray or something of that kind, and the only way to tell whether that does happen is to test these remedies. There are persons working on remedies for the boll weevil in England. I have a couple of correspondents in India, and other correspondents in almost every State of the country. In several instances these persons have come to Texas and have come to our laboratory at Dallas for advice and assistance.

For some years the State of Texas had a standing reward of \$50,000 for the discovery of an effective and economical method of destroying the boll weevil. While that reward was standing and while the commission under it was in existence, we had an opportunity of referring all of these people to the State authorities. Something over a year ago, however, this commission of the State of Texas was virtually abolished. They rendered a final report to the governor, in which they recommended the withdrawal of the reward. Since that time a great many of the people whom we could refer to that commission have come to us, and that makes a very

considerable amount of laboratory work that, on the whole, is growing at this time.

A line of work that is completed is our experiments in the possibility of controlling boll weevils at the gins. In the process of picking cotton and carrying it to the gins a great many weevils are taken along. It has repeatedly been seen that around gin-houses and around seed houses in the plantations the greatest numbers of weevils are found in the spring. In fact, these ginhouses or seed houses frequently serve as centers from which the infestation radiates. It was evident that if some effective means could be found for removing weevils from the seed when it comes to the gin, the important effect of these seed houses and ginhouses in disseminating the weevils in the spring would be reduced.

We first employed a practical gin expert, a man who was a graduate of Liverpool Technical School and had been engaged in the ginning business for fifteen years in Texas. He made a careful study of all the different systems of ginning machinery in use in this country to determine exactly at what points the weevil might be destroyed and at what points under the current system it escapes. It was necessary in connection with that work to run gins experimentally—that is, to feed hundreds and thousands of marked weevils to the ginning machinery at different stages in the process of ginning cotton and make provision for finding out exactly at what point after they were placed in the machinery they were destroyed, in what particular system of pipes or conduits or chutes that happened. That work has been completed. A bulletin has been published on the subject, and the effect has been that many persons in this country have patented devices especially for removing weevils from the seed cotton in the process of ginning. I think in our laboratory we have on file the Patent Office specifications of 15 or 20 devices that have been made as a result of the possibilities along that line that were pointed out when our results were published.

Mr. SCOTT. Are any of these devices found to be effective?

Mr. HUNTER. All of them are more or less effective, and some of them are exceedingly effective.

Mr. SCOTT. Are they being put into general use?

Mr. HUNTER. To my knowledge there are three large gin manufacturers who are making these devices especially at this time.

Mr. FIELD. What is the most approved device, and at what stage in the ginning is it found most practicable to destroy the insects?

Mr. HUNTER. When the seed cotton goes down through the chute to the gin itself within the inner breast of the gin the weevils will make their way to the gin saws, especially in case there is no cleaning device that the cotton has been run through. All the current cleaning devices will help to remove weevils, but the best of these cleaning devices allow weevils to get into the inner breast of the gins. Then in the process of ginning, as these saws are revolving 400 revolutions per minute, they drop down with the seed into the seed chute and are shot through the seed chute to the seed house, where in almost every gin in the infested country great numbers of weevils can be found. They are frequently taken with the seed from these seed houses and put into freight cars and shipped great distances. In fact, it has been a great wonder that no colonies of

the weevil over in Alabama or Georgia have been found on account of this shipping.

The most effective system of getting the weevils out of the seed at that point is a suction device which draws a current of air through that falling mass of seeds with weevils in it. The weevils being a different weight and different size from the seeds can be withdrawn as the seeds drop down into the seed chute. When they do get into this current they are carried through a revolving fan which destroys them or otherwise they are run through a pair of compression rollers and crushed.

Mr. SCOTT. At what stage are the weevils at this time? I mean are they adult?

Mr. HUNTER. The weevils pass their winter in the adult state. There is, of course, no cotton in the winter time, and they develop only in cotton. Consequently they are forced to pass the winter as adults.

Here is an experiment that is under way at present that will go on well toward the end of this year, or, in fact, into the beginning of the next fiscal year. For some time the recommendation has been made that the most effective way of reducing damage by the weevil would be by cutting off the very large numbers that are allowed to breed in the cotton fields in the fall, in many cases after they become so numerous that no more cotton is to be produced.

One of the recommendations, published originally by Doctor Howard as the result of the very first work on the weevil, was that this cotton should be uprooted and burned. That recommendation goes so much counter to the general tendency in cotton production that it has been taken up very slowly. I think Mr. Field will corroborate my statement that in his important cotton-growing region there are very few farmers, indeed, who destroy their stalks sufficiently early in the fall.

Mr. FIELD. Is it not altogether impracticable to destroy cotton stalks at that time of the year, in view of the fact that you destroy a large part of your cotton crop?

Mr. HUNTER. It is not the point to destroy the plants any earlier than such time as the weevils have made it very evident that no more cotton is to be produced.

Mr. FIELD. Still, much of the cotton remains on the stalks unpicked after that?

Mr. HUNTER. That involves another difficulty. That is, the possibility of getting the cotton picked at any time. One of the principal difficulties in cotton production in the South at this time is the scarcity of labor. In many regions they continue to pick cotton where there is any cotton to pick away through the winter season into January or February.

These difficulties Mr. Field mentions are practical ones in the way of following this system. On a large plantation it would undoubtedly be impracticable to carry this out; but in many cases on smaller areas, where a man is not altogether a cotton planter, but has other crops, it would be possible under such conditions for him to destroy the stalks in the fall.

The point is that our data about this matter are not as complete as they should be. We have thought that possibly if we could show more tangible results coming from this work in the destruction of the

plants, the process would be taken up more generally by the planters. It is a matter that requires careful experimental consideration. It should be conducted in an isolated region—that is, all the cotton in a certain region should be destroyed. This season we found a locality on the coast of Texas, in Calhoun County, where there was a colony of farmers who, together, had about 400 acres of cotton. This cotton was growing on a peninsula running into the Gulf and was completely isolated from any other cotton by either water stretches or marsh stretches of 10 or 15 miles.

One of our agents, on finding such a situation there, called the farmers together and made the proposition that the Government would like to carry on a large-scale experiment in the destruction of plants. He succeeded in getting all these farmers together; so under contract they went to work and destroyed completely every vestige of green cotton in their fields the first week in October. The arrangement about paying the farmers was that they should receive a just compensation for the amount of cotton that remained on the plants when the destruction began. That was determined by an appraisement committee consisting of our agent, the individual farmer in each case concerned, and a third party, who was selected for the purpose by all of the residents in that community. So the ground was cleaned up completely in this isolated area.

The CHAIRMAN. How many acres?

Mr. HUNTER. About 400 acres. There can be no confusion in the interpretation of the results next year on account of weevils coming in from other cotton regions. It is too far removed from other regions. Next spring we will have data when the next crop is produced and the weevil observations are made as to exactly what the effect of this process was under such very favorable conditions. If the results are as conspicuous as we suppose they will be, undoubtedly this process of fall destruction of plants will receive a great impetus in Texas.

To add our knowledge along the same line, another series of experiments was started. As the winter is the most critical time in the life history of the weevil, and as that season can be lengthened by the farmer by this fall destruction and by late planting the following spring, it was thought that by a sufficiently early destruction of the plants, followed by late planting the following season, no weevils whatever would be able to survive; in other words, the season would be lengthened too much for them. In order to determine exactly what time the farmer must destroy his stalks completely in the fall to prevent the appearance of weevils the next season we had a series of large cages constructed at a northern, a central, and a southern point in Texas.

These cages consisted of compartments 10 feet square. Into each one of these compartments thousands of weevils were placed. These cages were built over the cotton in the fields. Beginning the 1st of October the plants were removed from one of these compartments. The weevils were left there. A week later the plants were removed from a second compartment, and so on through into December. When those results are followed out next spring, we will have accurate data as to exactly what the farmer in either northern, central, or southern Texas could have accomplished in the destruction of the weevils by removing the plants at any specified date during the preceding fall, at least for that season.

In connection with that same idea of lengthening the hibernation period of the weevil, we performed some experiments this year in late planting. We found four localities where we had practically complete isolation, and saw to it that the plants had been removed carefully from the field the preceding fall. On these areas cotton planting was deferred until about the middle of June. The idea was to see whether any weevils would survive until that time in a practical field experiment.

One of these experimental plantings of 16 acres was located in western Texas, separated from other cotton by at least 10 miles. In that case the cotton was planted on the 10th of June and no crop whatever was produced. The plants grew very well and the weevil was the only factor in cutting down the yield. The weevils had been able to survive this protracted season of hibernation and appeared practically as soon as the cotton plants were out of the ground.

Our experimental work in Texas has been continued on a smaller scale than before. For instance, in Robertson County, near where Mr. Field lives, where before this season we had 100 acres of experimental cotton, this season we cut it down to 50 acres. At another place, Austin, we had 100 acres, which was reduced by half in the same way. In some other places the work was cut out altogether. We considered that it had been conducted long enough in those localities to give us the information we wanted.

In general, wherever work was cut out of any one of these places in Texas where it had been conducted for several years a similar amount of work was established in a new region where the climatic and other conditions made the weevil problem a different one.

Mr. FIELD. Before leaving that question of parasites, I want to ask what conclusion you reached as to the effect of the caterpillar or army worm in destroying the foliage of the plant in the early fall, and what effect it had upon the weevil the next ensuing year?

Mr. HUNTER. We found it had a very decided effect indeed. In fact, we are on the point of recommending that farmers take some steps to encourage these cotton caterpillars.

Mr. FIELD. Is it not a fact that there is more benefit resulting from it than all the other parasites combined?

Mr. HUNTER. Yes; in fact, this cotton caterpillar brings about exactly the result that we would have the farmers bring about themselves by the fall destruction of the plants. The caterpillars remove all the green foliage and cut off the supply of food for the weevils, so that great numbers of them perish. That is exactly what we would have the farmers do by the fall destruction. The fact that the cotton caterpillar does bring about such conspicuous results as it has is the best substantiation for our position that we have ever had. In certain regions in Texas this year the enormous crop that has been produced has been attributable directly to the complete defoliation of the plants by the cotton caterpillar.

The CHAIRMAN. Mr. Field, the cotton crop of Texas this year is the banner crop, is it not?

Mr. FIELD. Yes; it will go approximately to 4,000,000 bales.

Mr. LAMB. Will you please tell us the difference between the boll-worm and the boll weevil?

Mr. HUNTER. The boll weevil, sir, is a beetle, a newcomer in this country, that is gradually making his way up from Mexico. The boll-

worm is the offspring of a moth, a butterfly-like insect that has always existed in this country. The bollworm is the same as the corn worm.

Mr. LAMB. I know that; but what efforts are you making—

Mr. FIELD. Captain, I suggest that you let him complete the boll-weevil problem and the experiments made.

Mr. LAMB. Certainly; but I have been waiting to bring that out just at that point because I have here a brief that has been handed to me that presents the question of the bollworm.

Mr. FIELD. Yes; I had that in mind also.

The CHAIRMAN. Let him finish with the boll weevil first and then take up the worm.

Mr. HUNTER. That covers in a general way the kind of work we have been doing. We have been continuing our laboratory work, because the weevil is changing its habits. It is reacting to the climatic conditions that are found in the different regions it is getting into. It occurs now from an altitude of 2,600 feet above sea level down to sea level and a distance of about 600 miles north and south; also over a region where the rainfall varies from less than 10 inches to a very heavy precipitation—about 60 inches—in the Mississippi Valley. I have a chart here, which I will pass around, that shows the infested area with relation to rainfall in the South. You will see from that chart that the weevil is just about to enter into the region of the heaviest rainfall in the United States—from 50 to 60 inches.

The one natural factor in Texas that has assisted in the warfare against weevils is the dryness that occurs more or less normally through the growing season. The fact that Texas has produced nearly 4,000,000 bales of cotton this year and produced a very large crop last year is in large part due to the favorable climatic conditions for the plant and at the same time unfavorable for the weevil.

Over in the region in which the weevil is just entering, instead of a period of dryness in the growing season, they have more or less continuous rain. The rainfall in general is two or three times as heavy as it is in Texas. That is bound to react upon the weevil and make it a more serious problem for those people than it ever has been for the people in Texas. We are willing to admit that in Texas the problem is a long way toward solution. The present crop produced there demonstrates that; but at the same time we see clearly that in the region about to be invaded the weevil is going to do very great damage. As it advances across the cotton belt it encounters new conditions. These cause changes in its habits.

We can not tell exactly how they are going to react, but, judging by the experience of Texas during wet years, and judging by the experience in the moister portions of Texas compared with the drier portions, there is very great danger in evidence for the cotton planters all through the Mississippi Valley proper, and east of there.

The CHAIRMAN. Have you devoted your energies at all to the cultural methods?

Mr. HUNTER. Very much indeed, as far as the conditions in Texas are concerned. You take the cultural systems controlling the weevil, as recommended. In Texas it will enable the farmer to produce a profitable crop; but that success is largely due to the favorable climatic conditions that prevail there normally. You take the same system in an unfavorable year, a year of great rainfall, and the crop is sure to be short.

Just one word more about the large crop that has been produced in Texas this year and last year. To many people who are not especially posted on the matter this present large production indicates that the weevil has died out and the weevil problem is past. As a matter of fact, the two last seasons have been unusually disastrous for the weevil, both during the winter and during the summer. Both these seasons have witnessed much smaller numbers of weevils in the cotton fields than is normal. Next season, if the conditions are favorable, or in some future season after that, as much damage is certain to be done in Texas as has been done at any time before this.

Mr. FIELD. Is it not true that the increased production in Texas is due, in a large measure, to the increased acreage, especially in the West?

Mr. HUNTER. Exactly.

Mr. FIELD. Where they are exempt, in a measure, from the weevil?

Mr. HUNTER. In many localities in Texas there are hundreds of acres where the boll weevil has prevented the production of any cotton whatever. In east Texas I know large tracts where a cotton sack was never dragged through the fields simply on account of the damage by the weevil. That sort of conditions in eastern Texas and Louisiana has caused an enormous exodus of farmers to western Texas. Many thousands, many train loads, of them are going to western Texas. In many cases they sell or practically give away their land. That has resulted in a complete change in the appearance of a map that would indicate the centers of cotton production in Texas. The whole bulk of the cotton crop has moved a great many miles to the west—out in that high, drier region where the weevil does not do as much damage as it does elsewhere.

The CHAIRMAN. What is the average rainfall of western Texas?

Mr. HUNTER. Along the Pecos River it goes down as low as 5 inches. At Fort Worth it is about 26 inches annually. At Vicksburg it is about 26 inches.

Mr. SCOTT. What is being done in that part of Texas which has been abandoned as a cotton country? Are the farmers substituting any other crop?

Mr. HUNTER. In some cases they are. There is a limited region where they are taking up tobacco. There is a large region where they are going into fruit culture. They have found the conditions ideal for fruit culture; but at the same time very many of them are moving out of the country altogether.

Mr. SCOTT. Just abandoning their places?

Mr. FIELD. That is true, Mr. Scott. In some parts of east Texas you will find much land abandoned. I believe in 1904, after the disastrous year of 1903, one-fourth of the white farmers in the uplands abandoned their homes.

Mr. SCOTT. That is remarkable. I notice by this map that you have the weevil as far north as the southern part of the Indian Territory.

Mr. HUNTER. It has extended about 60 miles into the Indian Territory.

Mr. SCOTT. Do you think it has reached about its northern limit?

Mr. HUNTER. No, sir; I do not think it has. That brings up an interesting point.

The CHAIRMAN. How far north did you say it had got?

Mr. HUNTER. Sixty miles into Indian Territory. It is also across more or less of five counties in Arkansas.

Mr. SCOTT. Do you think it may cover the entire cotton region?

Mr. HUNTER. I do not see any doubt about that at all. I do not see any more doubt about it than that there is going to be greater damage done to other regions than there is in Texas.

Mr. SCOTT. Have you done any work outside of Texas this year?

Mr. HUNTER. Yes, sir; we have four locations where experimental work is being done in Louisiana. The weevil has practically covered the State of Louisiana. In fact it is within 10 miles of the Mississippi River, about 10 miles from Wilkinson County, in the State of Mississippi. The work that was discontinued, as I mentioned a few minutes ago, in Texas was replaced by work in north Texas and Louisiana and in regions in which the weevil was just beginning to make itself felt.

Mr. LEVER. In this region of heavy rainfall you expect the most damage from the weevil when he gets there?

Mr. HUNTER. The experience in Texas indicates that clearly.

Mr. SCOTT. You think it is inevitable, then, no matter what is done, that the weevil will eventually cover the entire cotton producing area in our country?

Mr. HUNTER. I see no escape from that conclusion.

Mr. SCOTT. And the best we can hope for is by cultural methods and by the increase in these parasitical enemies, to lessen its ravages?

Mr. HUNTER. That is the most we can hope for.

The CHAIRMAN. What do you call western Texas? About west of what point?

Mr. HUNTER. About west of Fort Worth and San Antonio.

The CHAIRMAN. West of a line drawn through here [indicating on map] at Fort Worth?

Mr. HUNTER. Yes; at Fort Worth there is an annual rainfall of only about 26 inches, and from that it decreases as you go toward the West.

The CHAIRMAN. How far west?

Mr. HUNTER. You see the Pecos River on the map. There is a great deal of cotton raised there.

The CHAIRMAN. They are successfully raising cotton, then, in three-fourths of Texas? Is that so?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Where was the island you made the experiment you spoke of?

Mr. HUNTER. In Calhoun County, on the coast, about halfway between Galveston and Corpus Christi.

The CHAIRMAN. You say the weevil has arrived within 10 miles of Mississippi and Louisiana?

Mr. HUNTER. Yes, sir; near the southwestern corner of Mississippi.

The CHAIRMAN. Mr. Field, you will have to take another quarter of Texas, that eastern quarter, and put it into some other crops.

Mr. FIELD. But those east Texas men object right seriously to that. I am not in east Texas.

Mr. HUNTER. That is the trouble—the natural conservatism of the southern cotton planters.

Mr. BROOKS. Will cotton grow up in the country toward the Panhandle?

Mr. HUNTER. Yes; there is a great deal of cotton there.

Mr. BROOKS. I thought that was too high.

Mr. HUNTER. That is the region that is helping decidedly in keeping up the production in Texas. A large part of that 4,000,000 bales comes from the Panhandle.

The CHAIRMAN. How far in the Panhandle?

Mr. HUNTER. As far as about Clarendon.

The CHAIRMAN. I did not suppose you could raise cotton up there. Are you sure of that, Mr. Hunter?

Mr. HUNTER. Oh, yes.

The CHAIRMAN. I mean successfully.

Mr. HUNTER. Well, almost as well as they do in Virginia.

Mr. LAMB. They raised it in about three or four counties in Virginia.

Mr. BROOKS. Then there is no reason why they can not raise it in eastern New Mexico?

Mr. HUNTER. None whatever, where they have the water to irrigate it. When you get as far west as that you are beyond the region of sufficient rainfall.

Mr. BROOKS. Do you think the natural result is going to be that eventually the cotton will move west to the drier regions?

Mr. HUNTER. Yes, sir; the center of the cotton production in the United States for the last fifty years has moved by successive steps from the east to the west. At the time the last census was taken the center of cotton production was near Vicksburg, Miss. I think by the time the next census is taken the production of cotton in Texas will carry the center of production far across the Mississippi River, probably well into Texas.

The CHAIRMAN. That is very interesting. I had no idea of that. You say the last census showed Vicksburg as the center of cotton production?

Mr. HUNTER. Yes, sir; the center of production was 12 miles north of Vicksburg. It had moved for several census periods up to that time an average annual distance of 50 or 60 miles westward.

Mr. FIELD. Cotton is a dry-weather plant, and it takes very little rain to make a crop of cotton.

Mr. HUNTER. Yes, sir.

Mr. HENRY. Has this imaginary center reference to the area, or the amount of cotton produced?

Mr. HUNTER. The cotton produced. It is the point where all the cotton produced would balance.

Mr. HENRY. It does not have reference to the distance?

Mr. HUNTER. Not at all. It is simply where the weight of all the cotton produced would balance.

Mr. LEVER. I hardly see how that is possible.

The CHAIRMAN. Have you any quarantine regulations of any kind to try to prevent the weevil crossing the Mississippi?

Mr. HUNTER. No, sir; we found cases where the weevil has, by flight, covered much larger stretches than across the Mississippi River. In one case we have very definite evidence that a distance of 25 miles was covered by flight.

The river is not a mile wide at Baton Rouge, and consequently we do not see why the weevil would not get across by flying. Even if he did not get across by flying there are hundreds of ferries, little one-boat ferries between New Orleans and Memphis, that are carrying farm products back and forth, and that would give easy access. It is true that in the case of our current appropriations, as in the case of other appropriations, we have set aside a certain amount of money, about \$5,000 in the case of the present appropriation, to be used as an emergency fund in case isolated colonies of the weevil should be found far in advance of the natural area of spread. There has always been a probability that weevils would be found over in Georgia and South Carolina. They could easily be transported that distance in cotton seed or in any other farm commodities, and a large colony might get started and bring the trouble of the boll weevil to the people of South Carolina, for instance, ten or fifteen years before it would naturally reach them. The normal rate of spread by flight is about 40 or 50 miles a year. In case any of these colonies are found, which we suspect may be found at any time, it is our plan to use this reserve fund in an attempt to eradicate them. We have a precedent that seems to indicate it would be feasible to bring that about. A small colony was eradicated at Audubon Park, near New Orleans, several years ago.

Mr. LEVER. You stamped that out?

Mr. HUNTER. That was stamped out completely.

The CHAIRMAN. The Department has just handed in a supplementary estimate asking that this appropriation be increased from \$82,500, which it was last year, to \$150,000.

Mr. HUNTER. I think, Mr. Chairman, that refers to the gypsy-moth appropriation, does it not, and not to the boll-weevil appropriation?

The CHAIRMAN. I beg your pardon; that is right.

Mr. FIELD. Mr. Chairman, I would like to direct the gentleman's attention to one or two thoughts in the line of his experiments that I do not think he has touched on yet before the committee. He has mentioned the work done in destroying the plants and studying the weevil, but he has not mentioned anything of his experimental farm work and what purpose he has in mind in that.

The CHAIRMAN. That comes more under the Bureau of Plant Industry, does it not?

Mr. HUNTER. No, sir; the work of the Bureau of Plant Industry and our work is very clearly separated.

The CHAIRMAN. Experimental farming comes under the Bureau of Plant Industry, does it not?

Mr. HUNTER. No, sir; the demonstration farming does. The origin of the demonstration farm of the Bureau of Plant Industry is simply this: When it became evident that the boll-weevil problem was one of national importance, the Secretary of Agriculture took a trip to Texas, and saw that the most urgent need was to bring home to the people there exactly what knowledge was in existence about controlling the insect at that time. While the publication of bulletins had good results in some quarters, it did not have anywhere near the effect that demonstration of the methods would have in any one locality. So this large series of demonstration farms was begun,

which started with the knowledge that has been obtained by us and illustrated on these sample farms, as Doctor Knapp calls them. That policy has been followed for several years.

Mr. BROOKS. Even then, in the case of an evil so radical as the cotton-boll weevil, you could not successfully bring the knowledge of the Department home to the farmer by means of bulletins?

Mr. HUNTER. Within certain limits that is absolutely true.

Mr. BROOKS. In other words, you have to supplement it by the actual visual test?

Mr. HUNTER. Yes, sir.

Mr. FIELD. The demonstration work—the experimental work?

Mr. HUNTER. Ours is the experimental work upon which Doctor Knapp draws for information, and details as to what lines shall be followed in these demonstration farms of his that come later. Ours are strictly experimental, and only incidentally demonstrational. In the case of the farms with which you are familiar, those of Doctor Knapp, they are absolutely demonstrational, and are not experimental, except incidentally.

In these experimental farms we plant different varieties of cotton. The different plots are treated in different ways, fertilized in different ways, given different systems of cultivation, and we keep a very accurate record of everything the weevil is doing in those different blocks. We have, consequently, statistics showing exactly how infestation by the weevil has increased in each one of these blocks, and we know, consequently, what it was in the particular treatment of that block; whether it was variety or something else that brought about any checking in the progress of the infestation. That work is of the same nature as other field work. It gains value as it is continued through a series of years. In addition to that reason for carrying this experimental work on, there is this other one, that the weevil is changing its habits very materially. That is illustrated forcefully by the state of affairs along the northern border. The weevil has attempted, so to speak, to cross into Indian Territory for three years. For three years isolated colonies have been found along the Red River, but the cold of the winter checked each one of these isolated colonies and caused the infestation to go southward. Nevertheless this last season the weevil had acquired so much ability to withstand the conditions up there that it passed successfully through a less severe winter, on the whole, than had previously stopped it, and made a big jump of 60 miles into Indian Territory.

The CHAIRMAN. They get acclimated, as it were?

Mr. HUNTER. Yes; it is a continual struggle. The weevil is in conditions absolutely abnormal to it. It is acclimating itself, and gradually acquiring the ability to get along anywhere the cotton will grow.

I think, Mr. Chairman, that covers the main points of the work.

Mr. FIELD. Doctor, you have given us no information about the work done in the destruction of the bollworm.

Mr. HUNTER. No, sir; I am ready for that, though, if you are.

Mr. FIELD. Yes; I would like you to state that.

Mr. HUNTER. The bollworm is an insect that has received a good deal of attention in this country. Since the work has been done on the boll weevil on a large scale in Texas, it has seemed advisable to us in the Department also to look into the bollworm. In certain re-

gions in northern Texas and Louisiana I have seen fields where not a pound of cotton was produced, merely on account of the ravages of the bollworm. These cases were in regions where the boll weevil did not occur. In general these regions of bollworm damage are north of the present area infested by the boll weevil, but at the same time outbreaks of the bollworm occurred in the weevil territory. The result of that is that we have superimposed upon the weevil damage the damage by the bollworm, and we have consequently thought it was within our authorization under the appropriation to do something with the bollworm.

For the past two years we have had experimental field work at a number of localities in north Texas—at New Boston and Greenville—and Ardmore, in the Indian Territory.

At these places we have tried methods in the cultivation of the crop that had been found useful in weevil regions, because a very important point is to fight the two insects at the same time if it can be done with the same methods.

In addition to the cultural methods, that work practically as well against the bollworm as they do against the weevil, there are other things that can be done against the bollworm. For instance, very good results can be obtained by poisoning for the bollworm, and poisons have no value whatever in fighting the boll weevil.

Mr. SCOTT. Where are the eggs which produce the bollworm deposited?

Mr. HUNTER. They are deposited promiscuously all over the plant—the leaves, the stems, the bolls, and the squares.

Mr. SCOTT. Why can they not be reached by a spray, then, just as the eggs of insect enemies of the orchards are?

Mr. HUNTER. A great many of them are. If the farmer can poison at the right time he can get a very large percentage of them.

The CHAIRMAN. Do you poison the egg or wait until it is hatched?

Mr. HUNTER. After it is hatched. As soon as it hatches, the larva begins to feed slightly on the leaf, and travels slowly to a square or boll that it bores into. If the poison could be applied before they get into the boll, of course the worms can be killed. Otherwise it is practically useless.

Mr. FIELD. How is it possible to apply poison to the bollworm, that invariably deposits eggs in the square?

Mr. HUNTER. I think we must be talking about different things, because the eggs of the bollworm are deposited on the cotton leaves, sometimes on the stems, and sometimes on the squares. The bollworm moth has no apparatus at all which would enable it to deposit its eggs inside the square or boll.

Mr. FIELD. That is the worm we usually regard as coming from the corn?

Mr. HUNTER. It is the same insect.

Mr. FIELD. You are satisfied of that?

Mr. HUNTER. Yes, sir; that has been determined by breeding them. The trouble about the application of poison in that case is that all these eggs are not deposited at the same time. Moths are continually coming through the season into the cotton fields, from the cornfields or elsewhere, and the farmer by poisoning at a certain time might destroy a small percentage, but at the same time other moths would be there the next day, other eggs would be deposited, and a

few days later the larvæ would hatch and another application of poison would be necessary. In fact, it would be absolutely necessary to keep a pretty good coating of poison on the plants to have any considerable effect on the bollworm.

Mr. LEVER. I understand Mr. Sheppard, of Texas, has introduced a bill to increase that appropriation, has he not, Mr. Field?

Mr. FIELD. I believe so. He handed me a short brief that I wanted to put in the record.

Mr. LEVER. Doctor, has the Department any estimate for increasing the appropriation for the bollworm?

Mr. HUNTER. No provision has been made for it in the estimates. Undoubtedly we could do more work on the bollworm than we have been doing, and we have considered it was only proper to make the bollworm work secondary to the boll-weevil work.

Mr. SCOTT. Have you fought the bollworm in any other way than by cultural methods and poison?

Mr. HUNTER. Some little work has been done with trap crops. We found, for instance, that the bollworm moths will deposit their eggs on corn and pass by cotton. By planting corn at regular intervals during the season so that corn in the silk is in existence for some little time, the moth will deposit its eggs there instead of going to the cotton. That gives an opportunity to poison the corn and destroy the worms there, or to go over it carefully with a knife, which can be done economically if the labor conditions are right, and merely mechanically destroy the worms that are there.

Mr. FIELD. Have any of these experimental farms been used for the purpose of studying the habits of the bollworm?

Mr. HUNTER. Yes; the investigation of the life history of the bollworm is going right along in connection with this farm work.

Mr. SCOTT. Are you prepared to give us a financial report, or does some one else in the Department have direct charge of that?

Mr. HUNTER. I am charged with the experiments from the boll-weevil appropriation. I have not a definite statement with me to-day.

Mr. SCOTT. Can you tell us roughly how much the work for this year will cost? Will you expend the entire appropriation?

Mr. HUNTER. When we consider the current letters of authorization, you must understand we have only passed the middle of the fiscal year.

Mr. SCOTT. I understand that.

Mr. HUNTER. With the contracts and orders that are out, and letters of authority that are charged against the appropriation, and this reserve, the appropriation will practically be used. There may be a surplus of \$6,000 or \$8,000 altogether.

Mr. SCOTT. I see the same amount is estimated for the next year. Is it your judgment that that amount can be economically and properly expended, or have you completed certain lines of investigation to such an extent as to warrant you to abandon further work on them?

Mr. HUNTER. I believe the same amount could be expended to very good advantage. While it is true that certain lines of work have been closed up, that certain work has been completed, and there is no necessity for continuing it, at the same time, while the area infested increases and as the weevil reaches new regions where the conditions are different, entirely new problems come up. So as a

matter of fact, I should say, that while we can drop one line of work, we have two other lines of work that we could legitimately take up.

Mr. HAUGEN. What lines of work have you completed, and what have you accomplished?

Mr. HUNTER. We have, for one thing, made a study of the life history of the weevil, and published a bulletin giving the knowledge that we had acquired in that way up to date. Another point has been the demonstration of the inadequacy of a great many remedies that have been proposed. Another has been in a study of the possibility of controlling the weevil at gins.

The CHAIRMAN. Then it is your judgment this appropriation will have to be a continuous appropriation?

Mr. HUNTER. As long as there is more danger ahead of us, Mr. Chairman, than there has been in the past, I think the appropriation should be continued. It is our opinion that the most serious situation is the one ahead of us. As to what is going to happen in the moist regions in the eastern part of the cotton belt, we can not say that the outlook is at all hopeful.

Mr. SCOTT. Is it not true that this weevil is supposed to come from Mexico?

Mr. HUNTER. It has been well established that its original home was in Central America or southern Mexico, in some of the high plateaus in that part of the country.

Mr. SCOTT. It seems established that it thrives better in a wet than in a dry climate?

Mr. HUNTER. Clearly; yes, sir.

Mr. SCOTT. That is the reason you anticipate more trouble from it when it gets farther east?

Mr. HUNTER. Yes, sir; that is the situation exactly.

In conclusion, Mr. Chairman, it looks to us, in the Department, that we still have a great problem on our hands. The situation in Texas, as I have said, is comparatively clear. The outlook is hopeful. But the danger is in the regions that will be invaded. The people are taking up with the work; and at the laboratory in Dallas during the last season we have had repeated delegations of planters, bankers, and business men in general from Louisiana and east of there who have come to look into the boll-weevil problem to find out what the prospects of damage over in their regions are. There is going to be a continuance of that demand for information, and we think we should be there to supply it as nearly as we can.

It is impossible to make an estimate of the money damage done by the boll weevil. But I think a very conservative estimate for the past year would be in the neighborhood of \$20,000,000 to \$25,000,000. Some estimates have been made by cotton people in Texas which run much higher than that. I do not know of any that run lower than about \$20,000,000. This \$85,000 appropriation which is estimated for I think is three-tenths of 1 per cent of that amount of damage for one year. In view of that relation, and in view of the outlook for the future in the Department, we think a continuance of the work would be well justified.

Mr. LEVER. You think, then, the boll weevil has destroyed 500,000 bales of cotton in Texas this year, or something like that?

Mr. HUNTER. At \$50 a bale?

Mr. LEVER. I average it at \$40 a bale.

Mr. HUNTER. In that neighborhood.

Mr. SCOTT. Have you been doing any work in collaboration with the State authorities?

Mr. HUNTER. Yes, sir; in Louisiana they have a crop-pest commission. We have appointed several men who are joint agents of our Bureau and of the crop-pest commission. In fact, everything we do in Louisiana is done in cooperation with the crop-pest commission there. In Texas, in view of our large special investigations of the boll weevil, we have turned over many matters in relation to minor cotton insects to one man we have appointed, who is detailed to a college station and resides there permanently.

The CHAIRMAN. How much money has Texas spent in aiding this work; do you know?

Mr. HUNTER. Very little. For two years or such a matter the State of Texas had a special appropriation for the weevil and provided for the salary of Professor Mally who was an entomologist. I imagine in his work \$25,000 or \$30,000 was expended.

The CHAIRMAN. By the State?

Mr. HUNTER. Yes, sir; in addition to that there was this \$50,000 reward, and the commission under it.

The CHAIRMAN. That reward never was paid out?

Mr. HUNTER. That reward never was paid, but the tests that were conducted by the commission took some of the money. I think it was \$2,500 or \$3,000.

The CHAIRMAN. That is all out of the \$50,000?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. How long has our Government work been going on under these special appropriations?

Mr. HUNTER. I went to Texas under the first appropriation of \$5,000 in 1901. It was an appropriation for the fiscal year 1902.

The CHAIRMAN. 1902-3. That is four or five years the Government has been spending each year an increasing sum, practically?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. It has increased from \$5,000 to \$85,000, besides what we have given to the Bureau of Plant Industry. The Bureau of Plant Industry has for this same purpose \$105,000 and you have \$85,000?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. That is \$190,000.

Mr. HUNTER. Yes, sir.

Mr. SCOTT. What was your appropriation last year?

Mr. HUNTER. Last year the appropriation was \$85,000.

The CHAIRMAN. The same as this year?

Mr. HUNTER. The same as estimated for the coming year.

Mr. SCOTT. Did I understand you to say the State of Texas had discontinued its appropriation for this work?

Mr. HUNTER. Yes. There is no special appropriation at this time.

The CHAIRMAN. They depend entirely on the National Government?

Mr. HUNTER. Yes, sir.

Mr. SCOTT. I was going to ask if you knew why they had discontinued it, whether they thought the experiment was not warranted by the results, or whether they thought the Government was doing all that could be done?

Mr. HUNTER. I think the latter is the explanation. In view of the large scale of work that was being done by the Government, with governmental facilities, it was unadvisable for them to undertake work of the same kind, which they would be forced to conduct on a smaller scale.

The CHAIRMAN. The bulk of this work and this money has been expended in Texas?

Mr. HUNTER. Yes, sir; the large majority of it; because until recently Texas was the only State that was attacked by the weevil.

Mr. HAUGEN. Are any of the other States doing anything at their experiment stations in this line of work?

Mr. HUNTER. The work of the Louisiana crop-pest commission is virtually at their experiment station. The secretary of the crop-pest commission is entomologist of the station, and the appropriation is made through the State.

Mr. HAUGEN. If the work is of the importance you think it is, and we should cut off the appropriation, do you think each State would feel it important enough to make appropriations and do something for themselves? Do you think they would regard it as of enough importance to warrant the appropriations?

Mr. HUNTER. I think some of the States would and some of them would not. The statute books of practically all of the Southern States have boll-weevil laws, and some of them are making appropriations at this time.

Mr. HAUGEN. About how much, each State?

Mr. HUNTER. In Mississippi there is an appropriation of \$15,000. I suppose altogether \$40,000 or \$50,000 is appropriated; perhaps hardly as much as that.

Mr. HAUGEN. Do you understand then that all of the States make appropriations?

Mr. HUNTER. No; some do not. In Arkansas, that is about to be invaded, there is no appropriation.

Mr. LEVER. But only about four of these States are immediately threatened. Is not that true?

Mr. HUNTER. Of that estimated amount of \$40,000 or \$50,000 at least 75 per cent of it is in the case of three States.

Mr. BROOKS. What are those?

Mr. HUNTER. Louisiana, Mississippi, and Alabama.

The CHAIRMAN. In your opinion, if these improved cultural methods were adopted in Mississippi, Alabama, Georgia, and the other cotton States, would it retard the advance of the cotton boll weevil?

Mr. HUNTER. It would not retard the advance of the weevil, but it would place the farmers in a condition to make better crops when the boll weevil reaches them.

The CHAIRMAN. Of course after he reached there he would not travel as fast if he met with improved cultural methods?

Mr. HUNTER. Well, it is to be expected he would not travel quite so fast, but I do not think there is an appreciable quantity in there at all.

Mr. SCOTT. Are not farmers pretty generally adopting these methods?

Mr. HUNTER. Very generally, indeed. They have been taken up

through commercial organizations. The Dallas Commercial Club has done a great deal, and other commercial clubs.

The CHAIRMAN. Do you know of any move of that kind that is being made east of the Mississippi in the cotton States there?

Mr. HUNTER. Not that I know of.

The CHAIRMAN. Do you not think the Department ought to disseminate some literature on that subject as to the advisability of taking up these better cultural methods?

Mr. HUNTER. We have done that.

The CHAIRMAN. Have none of the commercial bodies made any move of that sort? Have the commercial bodies in those States east of the Mississippi made any move?

Mr. HUNTER. They are doing it, and individuals here and there, bankers and others, are taking an interest in it sufficient to send representatives to Texas, to travel slowly through the infested area and find out exactly what the conditions are. It is true, though, that the past two years, witnessing a very large production in Texas, have rather had the effect of minimizing the seriousness of the problem in the minds of the people in the eastern part of the belt.

The CHAIRMAN. Very naturally.

Mr. HUNTER. I think, Mr. Chairman, that is all I have to say at this time.

The CHAIRMAN. Let me ask you this. If they stopped producing cotton entirely and produced another crop, would the boll weevil disappear?

Mr. HUNTER. Yes, sir; because there is no other food than the cotton.

The CHAIRMAN. And I think Mr. Galloway told us they had not yet found a resistant cotton?

Mr. HUNTER. No, sir; they have some indications of good results along that line. Undoubtedly a great deal can be accomplished, but it is doubtful whether an absolutely resistant variety of cotton will ever be found. We tested the sea-island cotton, Japanese cotton, and all the various varieties grown in this country—60 or 100 of them.

The CHAIRMAN. In 1867, when the wheat weevil destroyed our crops in the North, we took up the bearded wheat, what we called the Mediterranean red wheat, and grew that for two or three years and the weevil disappeared. Now and then we get a little trace of it, but it does not do any damage from a commercial point of view.

Mr. HUNTER. The boll weevil is the most conspicuous example of the fact that injurious insects do not all pass away expeditiously. In the Brownsville region the weevil has been in the cotton fields since about 1892. There has been great fluctuation in the number of weevils in that region on account of the different climatic conditions in different years. Sometimes large crops have been produced, as large as they ever produced before the boll weevil came into the country; but with favorable conditions for the boll weevil again, it has been our experience in that country that the numbers have come up once more. So, on the whole, it is true that in the region that was first invaded in this country the boll-weevil problem is as serious a one now as it was then.

The CHAIRMAN. At the present time is there any weevil which is attacking the wheat crop?

Mr. HUNTER. Not that I know of.

STATEMENT OF C. L. MARLATT, BUREAU OF ENTOMOLOGY.

The CHAIRMAN. Now we will hear you, Mr. Marlatt, on the gypsy moth. You may tell us what progress you have made. I believe this is the second year, is it not? It is the first year of the appropriation of any amount.

Mr. MARLATT. It is the second year, but the first of large appropriation. The gypsy-moth and the brown-tail moth problems are two separate items, and while often confused they must be considered separately, because they present entirely different problems. The gypsy moth is something that can be controlled by direct operations. The brown-tail moth is an insect which can not be controlled except indirectly—that is, that can not be controlled in its general spread except indirectly by parasites.

The CHAIRMAN. Then the brown-tail moth is the most dangerous?

Mr. MARLATT. In some respects the brown-tail moth presents greater danger than the gypsy moth. The brown-tail moth flies in both sexes, and may be carried by winds a distance of 100 miles in a day or two. The gypsy moth, or the female, which lays the eggs, can not fly, or, at least, it can only flutter down in an oblique direction from the tree to the ground, and hence of itself can only move a few rods, even with a favoring strong wind.

The CHAIRMAN. Does she lay the eggs where she alights, or does she travel some distance on the ground?

Mr. MARLATT. Only a few feet. She usually climbs up the trunk of the nearest tree and lays her eggs on the tree or on the ground, or on a stone wall, but usually on some elevation which is found a little above the ground. The funds appropriated by Congress have been directed against the gypsy moth. The Department has been doing a lot of work with the introduction of parasites, but that has been on money provided by the State of Massachusetts. Thirty thousand dollars was appropriated by the State of Massachusetts for the introduction of parasites. This was divided into three lots of \$10,000 each, to be spent over three years. Doctor Howard on this sum has made two trips to Europe, and has started the machinery of collecting parasites over there in a great many different places, and with extraordinary success.

Mr. SCOTT. These are parasites for the brown-tail moth?

Mr. MARLATT. They are parasites for both. Parasites have been introduced in Massachusetts now during two winters.

The CHAIRMAN. The parasite in Europe has kept them in check, has it?

Mr. MARLATT. Yes, sir; both of these insects in Europe are minor pests, because the parasites are there effective and abundant. In this country the same conditions occur as with the boll weevil. The parasites were left on the other side when the moths were brought over, and it has been necessary to make an attempt to bring the parasites over to do the work here which they are doing and have done for hundreds of years in Europe and in Asia.

A vast quantity of parasitized material was shipped to this country and taken to Boston. For example, one hundred and thirty-odd thousand nests of the brown-tail moth were sent to Boston.

Mr. SCOTT. Where were those nests found?

Mr. MARLATT. Those nests were collected in France, Germany, Italy, Switzerland, and Hungary.

Mr. BROOKS. And the nest was supposed to contain the parasite?

Mr. MARLATT. These nests were the winter colonies of the brown-tail larvæ, and many of these larvæ are parasitized, so that we import the whole nest, and keep the nests in cages in the woods near Boston and breed the parasites from these nests, sometimes hundreds from a single nest.

Mr. SCOTT. What is the character of the parasite?

Mr. MARLATT. The parasite is a very minute insect. These parasitic insects all belong to the same family; for example, as the parasites of the boll weevil, which was discussed a moment ago. They are very minute insects, which live in other insects and have no other food habit. If they do not find insects of the special kind which they parasitize, they perish.

Mr. SCOTT. They are winged, are they?

Mr. MARLATT. They are winged.

Mr. SCOTT. Speaking generally, there would be no danger to any other domestic industry or product by the introduction of these parasites?

Mr. MARLATT. There is no danger whatever from these parasites. The one point that must be looked out for is that these parasites themselves have other parasites, and in introducing the first we do not want to liberate the second. Hence the imported parasites are bred in wire-proof cages, and the insects which are bred are very carefully examined before they are liberated by experts who know the difference, and only the beneficial ones are liberated, and what are called secondary parasites—that is, the parasites of the first parasite—are destroyed.

To introduce the parasites of the gypsy moths the worms themselves, or the chrysalids, were shipped over in large quantities, and a great many parasitic insects were secured from them. We have also introduced in large quantities predaceous beetles, which are common in the woods of Europe, and which live on the caterpillars of the gypsy and brown-tail moths and other caterpillars. These have all been liberated in the vicinity of Boston. Some of the parasites, by thousands, even hundreds of thousands, have been bred there and the outlook is very hopeful. In other words, we are finding these same parasites now working in the woods freely in the moth colonies where they were liberated, and the experiment has been followed long enough now to show that they will pass the winter safely in this country.

The CHAIRMAN. They will stand our climate?

Mr. MARLATT. They will stand our climate and will succeed in breeding throughout the year. When they were first introduced it was a problem whether the gypsy moth alone or the brown-tail moth alone would furnish the food for them. We did not know but that in Europe they might live, say, three months of the year on the brown-tail and then on some other moth that we do not have here, and there was the risk that after that first three months they would perish here. But we have found they can pass the year on these two moths, the more important of the parasites, and hence the outlook is very hopeful. The practical results are not yet forthcoming. The experiment is in its infancy. We know enough of parasitic work,

however, to believe that when these parasites become fully established they will do as good work here as they are doing in Europe. In point of fact, they ought to do better work, because in Europe they have the check which comes from the secondary parasites, which we are attempting to keep out.

Mr. HASKINS. Do not those parasites breed after being liberated, and do they not produce some of these secondary parasites you want to destroy?

Mr. MARLATT. No; the parasite only produces its own kind. The secondary parasite is a different species of insect.

Mr. BROOKS. As we understood it last year, the appropriation this committee made was to be used largely in quarantine work, and the State of Massachusetts was going to confine itself to the parasitical and local work. Is that the way the work has been conducted?

Mr. MARLATT. That is it exactly.

The CHAIRMAN. Suppose you give the committee an account of the practical work done.

Mr. MARLATT. The work in Massachusetts is divided now between the State appropriation—the State having made an appropriation a year ago of \$300,000—and the appropriation by the National Government of \$82,500, and the special appropriation by the State of Massachusetts for parasitical work, which was turned over to the Department of Agriculture for expenditure under the direction of the Entomologist. The \$82,500 which was appropriated by the National Government is being expended, as you state, in quarantine work.

The work is being done along the main highways, where the pest is carried by wagons, automobiles, and street cars, and the isolated colonies are being taken care of by the Department of Agriculture, and the infested highways are being taken care of. The underbrush is being cleaned up on each side of the road where the larvæ would obtain lodgment.

Mr. BROOKS. How far west does your work extend?

Mr. MARLATT. The gypsy moth covers the eastern quarter or nearly the eastern third of the State. It extends from Westboro County to the coast.

Mr. BROOKS. How much is there in Westboro County?

Mr. MARLATT. Naturally the periphery is scatteringly infested, but there are important colonies in or adjoining Westboro County. There are important roadside infestations.

Mr. BROOKS. I think whoever was here last year said they had appeared in northern Connecticut and Rhode Island, along the line of the railroads and roadways, and some in New Hampshire. Have they spread into these adjoining States?

Mr. MARLATT. The gypsy moth has crossed the line into the southern counties and into the coast county of New Hampshire, and the western and southwestern counties in Maine have a scattering of sporadic colonies. There is one colony only in Connecticut, at Stonington, which is being handled by the State authorities.

Mr. BROOKS. That is entirely isolated?

Mr. MARLATT. That is entirely isolated; and a small colony which is being handled very vigorously by the State entomologist, under our inspection.

The CHAIRMAN. Under an appropriation by the State of Connecticut?

Mr. MARLATT. Under an appropriation by the State of Connecticut.

The CHAIRMAN. How much; do you know?

Mr. MARLATT. I do not know the amount.

The CHAIRMAN. What is Maine doing along the same line? Is she working on the same line as Connecticut, on isolated colonies?

Mr. MARLATT. Maine has not taken up the work except as an adjunct to the ordinary work of the station or the State entomologist. I do not think there has been a special appropriation for the work in Maine. The insect is just getting into Maine. We have done scouting work in Maine.

The CHAIRMAN. Last year they asserted pretty positively that the insect was in Maine. I think you said so, Mr. Roberts.

Mr. ROBERTS. The brown-tail moth.

Mr. MARLATT. The brown-tail moth has been there some time.

Mr. BROOKS. It is the brown-tail moth that flies?

Mr. MARLATT. It is the brown-tail moth that flies.

Mr. BROOKS. When you were speaking of the locality in which the insect had worked its way, were you referring to the brown-tail or the gypsy moth; for instance, in Westboro County?

Mr. MARLATT. I was referring to the gypsy moth.

Mr. BROOKS. Has the brown-tail moth worked farther west?

Mr. MARLATT. We do not know the exact limits of the brown-tail moth. The tendency of the brown-tail moth is to work toward the northeast, and its spread southward and westward has been slow. I doubt if it is much farther south than the gypsy moth, although I have no recent data on that point. The data for this summer have not yet come in.

Mr. BROOKS. What is the reason for that?

Mr. MARLATT. The reason is that the prevailing winds at the time of flight are in the direction of the northeast, and the wind is the controlling factor.

The CHAIRMAN. What time of the year does he fly, Professor?

Mr. MARLATT. About the 1st of July.

The CHAIRMAN. In the summer winds?

Mr. MARLATT. Yes; in the summer winds. The flight is in the early part of July.

Mr. SCOTT. Would you describe a little more in detail the work you are doing? You had just started, in response to the chairman's question, to describe the work you were doing along the highways. This consists of clearing up the brush, you say?

Mr. MARLATT. The work is divided. The State of Massachusetts having appropriated the larger sum, and a much greater sum still than that being spent by the towns and individuals, the entire charge of the inner extermination work was left to the State. We have taken charge of the scouting work, to determine the extent of infestation, and the clearing up of the main highways. The latter includes the cutting out of underbrush and clearing the forests to a considerable distance on each side of the roadway, so that the gypsy moth infestation, which is normally very near the edge of the road, can be easily determined and the winter work mapped out on the destruction of the egg masses, by which means the insects are stamped out and the spread checked.

This road work and the scouting work and the destruction of isolated colonies are being done under the national appropriation. It covers an enormous area along the periphery of infestation in Massachusetts. It covers also some work in New Hampshire and some work in Maine. The work in New Hampshire and Maine has been minor—in Maine chiefly scouting.

Mr. SCOTT. Just what do you mean by scouting?

Mr. MARLATT. Sending men who are familiar with the gypsy moth along the roads and through the counties adjacent to those known to be infested to investigate the probable extension of the moth, following out the probable lines of extension from any infested center along the main highway and all the important highways that intersect it to determine the infestation, if possible, at its very outset, when it can most easily be checked.

Mr. SCOTT. When that determination is reached in respect to any given locality, what do you do? What is your next step?

Mr. MARLATT. The next step is to follow out the ordinary methods of control which long experience with the moth has shown to be most effective. For example, the clearing out of the underbrush. You can see that in a dense mat of underbrush it would be impossible to do anything in the way of work with insects.

Mr. SCOTT. How far back from the picket line do you clear out the underbrush?

Mr. MARLATT. For a distance of 100 or 150 feet, or sometimes more.

Mr. BROOKS. Do you do any of the spraying and painting of the trees, or do you leave that to the local people?

Mr. MARLATT. In the case of this roadside work on the periphery and the isolated colonies, we do all of the work.

Mr. BROOKS. Which is the more effective, painting or spraying?

Mr. MARLATT. The most effective work is the winter work with the egg masses. I suppose this subject has been discussed before your committee a great many times and you are probably familiar with the habits of this insect. The female moth when it climbs up the tree deposits its eggs in one mass nearly as large as a silver dollar. and this mass is covered with the felted hairs from its own body, so that it makes a conspicuous yellow patch on the tree which can be seen at a distance of several rods when the leaves are off; and these yellow patches are usually within reach, or at least can always be reached by ladders. It is a simple matter in winter to go through a properly cleared up woodland or along a properly cleared roadway and daub each one of these masses with a little creosote; and one daub will kill all of the eggs.

The CHAIRMAN. That is what is going on now?

Mr. MARLATT. Yes. One daub will kill the three or four hundred eggs that are in each one of these masses. If this has not been done, and the outbreak is found in the growing season, there is nothing to do but to spray the trees with a poison. That of course is more expensive and less effective. Then, there is the handling method, which catches the larvæ as they come down from day to day for concealment.

Mr. HASKINS. You are also doing some work in Rhode Island, are you not?

Mr. MARLATT. Yes, sir; I was coming to that. We are assisting in the work in the city of Providence, which is pretty generally and

extensively infested. The only work we are not giving direct financial assistance to is that in Connecticut.

The CHAIRMAN. Do you know whether you have completely stamped out any isolated spots? Have you succeeded in doing it?

Mr. MARLATT. It is too soon to determine that. The work has only been going on one year, and this work must be followed up for one or two years; that is, the observation or inspection of these spots must be followed one or two years to make sure that individuals have not escaped. Isolated spots were stamped out in numbers in the early work of the State of Massachusetts, showing that it can be done.

Your chairman asked me to say something about the work being done by the State of Massachusetts, with which we are cooperating. The State of Massachusetts, in its earlier appropriations, undertook to do all the work for the people and the towns. In other words, the entire cost of the work was sustained by the State appropriation. When the work against the gipsy moth was taken up again, it was decided to divide the cost of the work between the State and the towns and the individuals, so that there would be a local town interest and an individual interest in its conduct. The State made the appropriation of \$300,000, to be spent over a period of three years.

The CHAIRMAN. Three hundred thousand dollars, did you say?

Mr. MARLATT. Yes, sir. The towns were required to spend a sum proportioned on their assessed valuation.

Mr. BROOKS. That is, in addition to the \$300,000?

Mr. MARLATT. In addition. They must spend that in clearing up the streets and parks and parkings and land that properly belongs to the care of the city or town. The individual owner must also spend a certain proportion of his assessed valuation for the eradication of the insects on his own premises.

Mr. BROOKS. Will you tell us how it would be possible to do any effective work along that line in those wooded sections of the western central portion of the State? How could a man go into a wood lot, for instance, and, with the few dollars apportioned to that wood lot, do any work at all?

Mr. MARLATT. The whole object of the law is to prevent any man expending more money than the land can afford, or a higher tax than is legitimate; in other words, not to impoverish the citizen. In fact, if a citizen is shown to be too poor to pay his own moth bill, he is not required to do so. This small sum that is assessed, that he must spend, is spent, and if that is not sufficient the State pays the rest. In the case of a wood lot, if a man has spent this small sum—say, one-half of 1 per cent of the assessed valuation—the State pays the rest.

Mr. BROOKS. Then the owner simply contributes his mite?

Mr. MARLATT. The owner contributes.

The CHAIRMAN. He contributes what he can afford to?

Mr. MARLATT. Exactly. In the case of a city lot this amount is usually ample. In point of fact, the law has worked out very well. There is very little friction or difficulty.

Mr. BROOKS. Has your quarantine measure been successful? Have you kept it in check or is it spreading on you?

Mr. MARLATT. The spread of the insect has undoubtedly been very much checked by this work. It is an expensive operation, as you can easily see, to do this. It requires the employment of a considerable force of men. The stamping out of these outside colonies

prevents at once the wider distribution of the insects from those places as centers, and by that means very greatly checks the movement of the insects. There is no question at all about the efficiency, as a check, of the work that is being done.

Mr. SCOTT. What do you think about the work that has been done by the State, and to what degree has it been effective?

Mr. MARLATT. The State has done very effective work in the interior; so much so that during the last year the gipsy moth has not been a serious pest in the residential districts.

Mr. SCOTT. Have you done anything under your appropriation of \$82,500 that the State might not have done with the expenditure of a similar sum?

Mr. MARLATT. No; because the State could have employed the same men and done the same work. The insect has already passed the boundaries of the State of Massachusetts. It is an insect which ultimately may affect the whole country, and I imagine the people of Massachusetts felt it was a problem which the National Government should assist them in solving.

Mr. SCOTT. It really was not a problem, was it, except in so far as the expenditure of money was involved? What I mean by that is, it has been a subject of research so long that all the methods of handling it have been ascertained, and there was no further investigation along those lines needed. Is not that true?

Mr. MARLATT. In general, that is true. But in all big problems like this we learn something every year in improvement in methods and in greater knowledge of habits and life history which enables us to apply remedies more intelligently. This, however, does not hold in the case of parasites. There is no force in New England or America which can handle that except the Department of Agriculture, because the State authorities have not the experts to determine whether a parasite is primary or secondary, or to know what the parasite is. That is technical information.

Mr. HASKINS. It appeared here that the State of Massachusetts had already expended several million dollars in exterminating the brown-tail moth, and now they ask the Government to take hold of it with their experts. Therefore they came here and asked for an appropriation to assist them.

Mr. MARLATT. The State of Massachusetts spent altogether over \$1,000,000 in the early work. The State of Massachusetts, with her towns and citizens, has spent this last year over \$600,000, so that the sum appropriated by this Congress is small, compared with the amount they are spending to help themselves.

Mr. SCOTT. I would like to follow this up a little further. In reply to my first question you gave a general negative to the inquiry whether you had done anything which the State might not have done with a similar expenditure; but now you say that the work done in the line of parasites could not have been done by anybody outside of the Department of Agriculture.

Mr. MARLATT. That is done on a State appropriation.

Mr. SCOTT. But that was done with the State appropriation?

Mr. MARLATT. Exactly.

Mr. SCOTT. All the Department did was to furnish the experts?

Mr. MARLATT. Yes.

Mr. SCOTT. The work that was done with your \$82,500 could have been done by the State?

Mr. MARLATT. It could have been done by the several States.

Mr. SCOTT. I mean by the several States. Do you know how much it cost the Department to supply the experts who expended this \$30,000 or \$10,000, or was that appropriation by the State used to pay the salaries of the experts which the Department employed?

Mr. MARLATT. The salaries of the principal experts were paid by the Department of Agriculture.

Mr. SCOTT. And their salaries went on just the same?

Mr. MARLATT. Yes; they were our own men, in our employ, and were detailed to this work. For instance, Doctor Howard himself, who is the chief entomologist, had general charge of it and made the arrangements in Europe for the importations. Of course his salary was paid by the Department of Agriculture.

Mr. SCOTT. The \$10,000 was used to pay his expenses?

Mr. MARLATT. To pay his expenses and the expenses of the introduction of the parasites. Some of the workers in Massachusetts are paid out of this fund. In fact, all of the laboratory work by the minor assistants—that is, the less expert assistants are furnished by the State of Massachusetts. We send practically only one expert there, with occasional supervision by Doctor Howard.

Mr. SCOTT. What would be your estimate of the amount of money needed to carry on the expense of that part of the work which could not be as well done by the States for another year?

Mr. MARLATT. I fancy \$10,000 would cover the probable expense of importing and caring for the parasites.

The CHAIRMAN. Do you think it is necessary to import more?

Mr. MARLATT. I think the importation should be kept up vigorously for a number of years.

Mr. SCOTT. Would that include the salaries of the experts?

Mr. MARLATT. No; that would be in addition. Probably \$15,000 would cover it all.

The CHAIRMAN. Do not these parasites breed in this country?

Mr. MARLATT. Not these we are importing. We have many native parasites, but very few of them attack the gypsy moth or the brown-tail moth. These are European species which are normal enemies of these moths in Europe.

The CHAIRMAN. Does not the parasite breed in this country?

Mr. MARLATT. It does after it is imported. It is not necessary to reimport them every year, but it will hasten the outcome to continue the sending in large quantities of these parasites. It is accomplished with very little expense. The cost for collection and shipping is trivial. It is being done by entomologists of the various countries in Europe at the mere cost of the time that they give to it. We are not paying salaries over there. We simply pay for the actual cost of time in collecting these parasites. It is very largely done as a courtesy in that respect. We do not intend that they shall lose money—that is, give time or employ labor. Any time or labor which they employ we pay for. Practically that is the expense.

Mr. LEVER. I would like to take you back to the series of questions asked by Mr. Scott, which seem to have the end in view of establishing the fact that perhaps this whole business could be better taken care of by the States threatened.

Mr. SCOTT. Just as well taken care of.

Mr. LEVER. Yes; just as well taken care of by the States threatened. Is it your opinion that you could get such cooperation among the States as would effect the stamping out of this pest as well as through the agencies of the Federal Government?

Mr. MARLATT. We must not forget that it is a very big problem and that it affects the whole country, and while it may be local in Massachusetts for a little while, or in Maine and Connecticut and Rhode Island, it is going to be a national problem very soon. If we can ward off or check the extension of these pests, I think that ought not to be lost sight of.

Mr. LEVER. Would there not be a natural conflict of authority if the State were to take care of it?

Mr. MARLATT. And it is found if we leave a problem of this kind to the State it is indifferent as to the escape of the insect across its borders.

Mr. BROOKS. It is entirely to that interstate feature that the Department of Agriculture is addressing itself in the last analysis?

Mr. MARLATT. Yes.

Mr. BROOKS. That interstate feature could not be as well handled, in your judgment, by the individual States as by the Government?

Mr. MARLATT. No.

Mr. BROOKS. And the States that have been infected have responded with exceeding liberality, so far as the local infestations were concerned?

Mr. MARLATT. Massachusetts is covered by the statement which is made, namely, that she has expended this year, by State, towns, and individuals, upward of \$600,000. The State of Connecticut has taken the entire cost of the eradication of one little point of infestation in that State, Stonington.

Mr. HENRY. Right here. How far have the ravages of the moth extended? I do not mean the immediate area where it has been present, but outside of Connecticut, Rhode Island, and New Hampshire?

Mr. MARLATT. It is not known. These are the outside colonies, this one at Stonington, Conn.—

Mr. HENRY. That is 50 miles away.

Mr. MARLATT. Yes; and the one at the city of Providence, R. I.

Mr. HENRY. Has it spread to Rhode Island?

Mr. MARLATT. The city of Providence and the adjacent woods are pretty well infested. It is chiefly, however, confined still to the city proper.

Mr. HENRY. Is the State of Rhode Island taking care of that itself?

Mr. MARLATT. We are cooperating with the State of Rhode Island.

Mr. HENRY. Are they expending some money on it?

Mr. MARLATT. They are expending some money.

Mr. HENRY. Have there been outbreaks in western Massachusetts?

Mr. MARLATT. Not west of Westboro, so far as reported, to my knowledge.

Mr. HENRY. But there have been some in New Hampshire?

Mr. MARLATT. In the southern and eastern counties of New Hampshire and in the southwestern counties of Maine the insect is just getting in.

Mr. HENRY. Are those two States doing anything to take care of it?

Mr. MARLATT. They both publish warning bulletins. They have both undertaken some work. Just the amount of work I can not say, but they are both interested and are doing something.

Mr. HENRY. How do you account for these outbreaks miles and miles away?

Mr. MARLATT. The insect is very readily carried by any moving object. The larvæ may fall on an automobile, for example, and be carried 100 miles in a day. Automobiles are believed to be one of the principal sources of spreading it widely.

Mr. HENRY. That outbreak in North Stonington was in a rural community. Of course it may have been possibly caused by an automobile, but it is off the general through lines of travel.

Mr. MARLATT. You can not always account for those cases. In some cases it may be the result of malice, but we would be very loth to believe that to be the case.

Mr. HENRY. I do not believe that could be so.

Mr. MARLATT. There was some indication that the infestation in Providence was malicious. The evidence is purely circumstantial. The insect suddenly appeared in Providence at six or seven points about the same time, and it seemed improbable that sporadic cases would appear at several different points in the city about the same time.

Mr. HENRY. Do you know Professor Britton?

Mr. MARLATT. Yes; he has direct charge of the work in Connecticut. I think he is a very competent man, and is handling it evidently with energy.

The CHAIRMAN. When was that outbreak at Stonington?

Mr. MARLATT. I think it was discovered last year.

The CHAIRMAN. You can not tell whether it is eradicated or not?

Mr. MARLATT. No. Everything they have been able to find has been killed, and it simply remains to be seen whether some hidden nest under a stone or elsewhere has been overlooked. Of course if some egg nest has been overlooked, that will show itself next year and that will be stamped out.

The CHAIRMAN. Have they demonstrated whether they can be eradicated in those isolated spots wherever they may break out anywhere in the country?

Mr. MARLATT. Yes. In point or fact, this insect may, of course, be vastly more widespread than we now know. An insect of that kind getting into a new territory is very apt to be unnoticed for a year or two until it has extended its colony so as to defoliate a considerable body of woodland.

The CHAIRMAN. How prevalent is it over Europe?

Mr. MARLATT. It covers all of Europe and Asia. It extends from the southern portion of Norway and Sweden through all of middle and southern Europe and across Asia to Japan.

The CHAIRMAN. You mean the gypsy moth?

Mr. MARLATT. Yes, sir; the gypsy moth.

The CHAIRMAN. But the parasite over there keeps it in check?

Mr. MARLATT. The parasites normally keep it in check. Once in a while the insect will appear and defoliate a large section of a forest. For instance, some six or seven years ago a considerable portion of

the forest of Fontainebleu was defoliated by the gypsy moth, and when I was there the following year there was not a sign of it.

Mr. BROOKS. They do not use any remedy that would be effective?

Mr. MARLATT. Not very effective. They always do something. They band the trees with insect lime, and use other remedies of that sort, which in this country would not do any good, but they seem to place great store on them over there.

Mr. HENRY. Is the dense area extending in Massachusetts or are they rather curtailing it?

Mr. MARLATT. It has extended widely during the last three years. The definite effort at control has been only within a year. The insect has been held in check as much as may be, and within the badly infested district it has been so reduced in numbers that the pest has been much less felt than last year, for example, or year before last.

Mr. BROOKS. The threatened defoliation of certain of the counties has not taken place?

Mr. MARLATT. Many counties have been defoliated year after year.

Mr. BROOKS. I mean this last year.

Mr. MARLATT. Yes; that is what I understand. I did not myself make a personal examination last year, as I was not in this country; but I understand from Doctor Howard and Mr. Kirkland that the trouble in the residential districts has been kept down so that it is not a grievous pest.

Mr. BROOKS. With proper interstate restrictions by the General Government, the local governments can take care of the infestation?

Mr. MARLATT. It would be impossible for the United States, for example, to appropriate a sum sufficient to do all the work. It would mean the appropriation every year very soon of two or three million dollars, and that would be out of the question, the State of Massachusetts alone having spent \$600,000 this year.

Mr. BROOKS. I am heartily in favor of this work. What I want to bring out, if I can, is that we are not wasting the money in spending \$100,000 in proper quarantine work, supplemented as it should be always, in my judgment, by proper local work by the people affected.

Mr. MARLATT. We feel that very strongly, and it was at our suggestion that this subdivision of the work in Massachusetts was adopted, so as to have a part of the expense borne by the people who are affected, so as to make the towns that are affected pay a part of it, and make the State pay the rest. It would be very undesirable, in my judgment, to have the National Government do all the work.

Mr. BROOKS. I think so, too. I think they should not be asked to do so, and I would not favor it.

Mr. MARLATT. But in this quarantine work we have been doing, it seems to us we could do a good deal better work and that we could legitimately spend more money. The chairman, as he remarked a moment ago, has a supplemental request which I believe has the indorsement of the New England Members—in fact, it was made by the Secretary on account of their request—that the appropriation be increased to \$150,000 instead of \$82,500. That was the sum originally asked for by the Entomologist, and that sum can undoubtedly be expended along the lines on which we are now working with good results, and legitimately, in my judgment.

Mr. FIELD. Doctor, I understood you to say that the methods

now used in the extermination of this moth are not new; that the work you are doing is not experimental, but demonstration work?

Mr. MARLATT. It could hardly be called demonstration work. This matter of control is not new work. It is not experimental work in that sense, but it is absolutely quarantine and repressive work.

Mr. FIELD. It is known to the Department and is put in application under the direction of the Department?

Mr. MARLATT. Yes.

Mr. FIELD. That being the case, this appropriation is based upon the ground that it is quarantine work, inasmuch as this insect is liable to visit other States, and therefore requires the assistance of the National Government. That is the theory upon which this appropriation is made?

Mr. MARLATT. I believe so.

Mr. FIELD. From the history of this moth, do you think it is hardly probable that it will be entirely exterminated in this country?

Mr. MARLATT. I do not think there is any chance now of extermination.

Mr. FIELD. And it is likely that the aid of the National Government will be invoked, and properly so, from year to year in controlling the ravages of this moth?

Mr. MARLATT. The aid of the National Government will cease, or should cease, at any rate, when the insect has become a local matter in all the region which it may infest. As long as the National Government can assist in quarantine work it is a national matter.

Mr. FIELD. So that appropriations may properly be made for that purpose?

Mr. MARLATT. It is possible, of course—in fact we hope that will be the result—that these introduced parasites may put an entirely different phase on the matter.

Mr. FIELD. What is the estimated damage resulting from the presence and the work of the moth?

Mr. MARLATT. It is very difficult to estimate the damage of an insect of that kind, because there is no definite crop destroyed that you can measure; but in the vicinity of Boston, popular suburban villages, such as Malden, and a dozen other villages around the Middlesex district, have been rendered almost uninhabitable in summer by reason of the enormous numbers of these caterpillars which crawl over the houses and into the houses and onto people and destroy the foliage, and hence make the cities hot and uncomfortable and destroy their beauty.

Mr. HENRY. There is nothing that they do not eat, is there?

Mr. MARLATT. There is no green thing, apparently, that they will not eat.

Mr. SCOTT. Do they kill the trees?

Mr. MARLATT. The deciduous trees die after two or three years of defoliation, and the pine trees after one year of defoliation. The property depreciates in value and people move away. Of course those of you who are familiar with Boston know of the enormous park areas—the Middlesex Fells and the Lynn Woods, and other wooded areas—many of them of private ownership. Many of these have been greatly injured or destroyed.

Mr. BROOKS. How much did the moth work in the Fells this year?

Mr. MARLATT. As I remarked before, I can not answer that fully.

I was there for a day early in July and there was very considerable damage showing in the Fells region and in all that district. The beneficial results of the work of the State have been largely in the towns—in the residential portion. The amount of damage, therefore, is very difficult to estimate, but it would run up into millions of dollars, undoubtedly, about Boston.

Mr. FIELD. That is actual damage to property, not including mental suffering?

Mr. MARLATT. I am not including mental suffering at all. In the case of the brown-tail moth, in addition to the damage by defoliation, there is the disagreeable result of poisoning the inhabitants of those districts. The hairs which this caterpillar sheds when it transforms are poisonous, and in floating through the air or collecting on garments hung out to dry after washing hundreds of people become inflamed and are poisoned for several months during the summer.

Mr. BROOKS. And sometimes rather seriously?

Mr. MARLATT. Sometimes rather seriously. Our own experts up there in charge of the parasite work, who had to handle the insects and larvæ, were badly poisoned throughout the summer, and the condition developed in one case was very serious. The man stuck to his work, but really was in better condition for the hospital than for the work during the whole time.

Mr. HASKINS. They are just as liable to attack timber land as anything else, are they not?

Mr. MARLATT. Exactly.

Mr. HASKINS. And then there would be actual damage?

Mr. MARLATT. The damage is actual enough, but it is difficult to compute.

Mr. SCOTT. Has there been any change in conditions that render an increased appropriation necessary?

Mr. MARLATT. The work that we have done, and that the State of Massachusetts has done, has shown a much broader field to be covered than we thought was the case. Perhaps the map will show the enormous area of periphery which must be taken up if the Department continues the work it has undertaken, and we will need a larger sum to do it efficiently.

Mr. SCOTT. Will you have to keep up a patrol this year along the picket line that you worked out last year?

Mr. MARLATT. Next summer we shall have to patrol the same region to see that the work has been effective, to stamp out any overlooked colony or egg mass; and the work we are now doing, chiefly in Massachusetts, should be extended with equal vigor into New Hampshire and Maine and Rhode Island.

Mr. SCOTT. Then the work you have done this year does not, as a matter of fact, allow you to move on to another field without additional appropriation?

Mr. MARLATT. The field is only partly covered, even with this year's appropriation. The work has been done chiefly in Massachusetts, and that work must be followed up.

Mr. SCOTT. Must be done over again?

Mr. MARLATT. It must be in part done over again.

Mr. BROOKS. It is not done over again in the sense of—

Mr. MARLATT. No; new infestations may come in this territory. That is, this territory is the fighting line, and we have to keep fight-

ing along that line to keep the moth back. If you abandon any portion of this line, you leave there an opening for the insect to get through.

Mr. SCOTT. It would be a mere conjecture, I presume; but would you care to offer a guess as to when you could abandon that picket line and move your troops somewhere else?

Mr. MARLATT. I am afraid, Mr. Scott, when we abandon that we will simply have to move farther inland. That is the unfortunate probability, unless we are able to get a large enough force to clean it up thoroughly on the outside and work in. That is what we hope to be able to do, and possibly with the aid of these parasites we are introducing we can force the line in instead of being ourselves forced out.

Mr. HENRY. How large an area has the brown-tail moth been over at this time? What is the limit of its visitation?

Mr. MARLATT. The known limit covers most of New England north of Connecticut.

Mr. HENRY. I have never seen it in Connecticut.

Mr. MARLATT. No; I say north of Connecticut. It has spread over much of New Hampshire, Maine, and Vermont. It has been found in Canada and in New Brunswick.

Mr. HENRY. What are the principal trees it attacks?

Mr. MARLATT. The brown-tail moth showed a great preference when it was introduced for the pear, but unfortunately it has demonstrated that it can live and be very destructive on most forest trees. The oak is very considerably damaged, and most of the forest trees are more or less injured. The principal trees are the apple and pear and orchard trees and oak.

Mr. BROOKS. Generally they will attack the deciduous trees first and the evergreens last?

Mr. MARLATT. Evergreens are not attacked.

Mr. HENRY. I was not aware that the brown-tail moth had attacked so many trees. I thought he was confined to a few trees.

Mr. MARLATT. During the first years it seemed to have a special preference for the apple and pear, but when it becomes very abundant it seems to be willing to take almost any deciduous plant.

Mr. HENRY. Then, between the brown-tail moth and the gypsy moth there is not much show in the country where they both travel?

Mr. MARLATT. Of course we hope great things from these parasites. We feel a great deal of confidence in the results so far obtained.

Mr. HENRY. Have you found a parasite for the brown-tail moth?

Mr. MARLATT. Yes; much of these importations has been of brown-tail parasites.

Mr. Chairman, the work of the Bureau of Entomology covers a great many other subjects. These discussed are two only of a great many subjects belonging to our work.

The CHAIRMAN. I notice there is quite a large increase in your lump-sum appropriation. Do you want to take that up in the absence of Doctor Howard? If you do we can go on with it right after lunch.

Mr. MARLATT. I shall be very glad to give you any information you may wish on that point.

The CHAIRMAN. You have the data, have you, upon which to base your claim for an increase?

Mr. MARLATT. Yes; I can give you the reasons for the increase.

The CHAIRMAN. Then we will take a recess at this time and take that matter up at a quarter after 2. Does Mr. Hopkins want to be heard?

Mr. MARLATT. Mr. Hopkins will speak on the subject of forest insects. He is in our Bureau and has in his charge the work on forest insects.

The CHAIRMAN. Does that come under your expenditures also?

Mr. MARLATT. That comes under our expenditures. It is all the same general subject.

The CHAIRMAN. Your hope of success in controlling this thing, then, is in the parasite?

Mr. MARLATT. The hope of large control is in the parasite.

The CHAIRMAN. Have you any hope of absolute extermination?

Mr. MARLATT. None whatever.

The CHAIRMAN. But you have hope that the parasite will work in this country as it does in Europe?

Mr. MARLATT. Yes.

The CHAIRMAN. And keep the moth in subjection, you might say?

Mr. MARLATT. And in the meantime we want to do the most we can to prevent its spreading.

The committee (at 1.20 o'clock p. m.) took a recess until 2.15 o'clock p. m.

AFTER RECESS.

The CHAIRMAN. Mr. Hopkins, we would like to hear briefly about the work you have been doing.

STATEMENT OF MR. A. D. HOPKINS.

Mr. HOPKINS. Mr. Chairman, the early work on forest insects has been in the line of determination of facts on which to base recommendations for their control. These facts have been determined by expert field men working in the principal forest areas of the country, and the result has been that we have collected a very large amount of data on which we are now able to recommend, definitely, the proper thing to do to control certain of the worst enemies of our forest trees.

The extent of the damage caused by forest insects is to be compared with that resulting from forest fires. This is not simply an estimate, but we know that throughout the forest areas of the whole country insects are working constantly. Much of their damage is hidden until the tree is cut and sawed into lumber, then lumbermen find that the product is worthless on account of being injured by the insects. We have in other places entire forests, of hundreds of square miles, practically devastated, as is the case in the Black Hills Forest Reserve in the western section of South Dakota. There the insect is practically destroying the forests of that entire reserve. Our attention was first called to it in 1901, and investigation showed that it was confined to one corner of the reserve, and that it was a species heretofore unknown. A study of its habits revealed the fact that it attacked the healthiest and best trees, and that it was spreading rapidly. A study of its life history suggested a method of control, and a recommendation was made at that time. Since then we have had a

man there during the entire summer season for two years conducting special investigations and experiments, so that we know probably more about that particular insect than any other forest insect.

Mr. BROOKS. Is that the turpentine beetle?

Mr. HOPKINS. It is the Black Hills beetle—the proper common name to distinguish it from another beetle that is called the turpentine beetle. The remedy is to cut the infested trees and remove the bark from the main trunk, which is done in the regular operations of utilizing the product. The demand for timber there is principally for mine props, railroad ties, and timber which requires the removal of the bark. The simple removal of the bark during the winter, or from September until the 1st of June, is sufficient to destroy the broods. So our recommendation was to concentrate the principal operations of cutting timber in the sections which are worst infested, by doing which it could be controlled. That is as far as we could go. Our means and duties are limited to the determination of facts on which to base our recommendations. We can not apply them, but they must be applied by the local people (or, in the case of the forest reserves, by the Forest Service). But we can tell them how to do it.

Now, we know that if this had been done, as we have demonstrated in another locality, it would have saved many millions of dollars' worth of timber—over a billion feet, according to estimates by the Forest Service, has been destroyed. As an example, in the Pikes Peak Forest Reserve there was a similar outbreak two years ago, where the timber was dying in clumps, and there was every evidence that it would spread and destroy the remaining timber, as it has in the Black Hills; but through the efforts principally of one individual, Gerald Palmer, who spent several thousand dollars in cutting and barking the infested trees, it is apparently under complete control. We have had a man there looking it over very carefully, and we find that the ravages have been checked and the forest practically saved.

Another example of a simple method of controlling these insects by commercial methods, or by the ordinary method of lumbering operations and forest management, is in the Atlantic and Gulf States, where the cypress—the bald cypress—is being worked up; and their methods, in most of the places, require that the trees should be girdled and left standing several months, in order to dry out sufficiently to float to the mill.

The green trees will sink to the bottom at once if they are put in the water, but by leaving the trees standing a few months they dry out sufficiently to float. They found that these green trees were being seriously injured by wood-boring insects—minute insects which bored into the wood and caused pin-hole defects, which greatly reduced the value of the product and which were causing a very serious loss. We have made an investigation of this during the past three years and have just issued a circular giving the results, and it is interesting to note that our recommendations fit in exactly with what the lumbermen had already determined from another line of inquiry and from practical experience. We found that if the trees were girdled in March, April, October, and November they would not be damaged by the beetle which caused the principal injury, and also that the winter girdling would be exempt, while the girdling in May, June, July, and September was very seriously damaged.

The CHAIRMAN. And August?

Mr. HOPKINS. As to August, if you will allow me, I will read a short paragraph from the report of our investigation:

The facts and evidence of immediate practical importance may be briefly stated as follows: Trees girdled in March, April, October, and November were not at all or but slightly damaged by the pine borer, while those girdled in May, June, July, and September were more or less seriously damaged. There were indications that trees girdled in August were not damaged as badly as those girdled in July and September, also that trees girdled from December to February were not seriously affected.

Now, the secretary of the Cypress Manufacturers' Association wrote to us for information, and this circular was immediately made up, published, and sent out, and they stated that they greatly appreciated it and would immediately consider the application of the information in their practical work—that is, conduct the principal girdling in the months indicated, and in that way avoid this loss. This is merely an adjustment of the regular lumbering operations which will bring about the prevention of losses amounting to hundreds of thousands of dollars.

It is very encouraging to find in a great many cases that similar methods can be applied in the control of forest insects. It is out of the question to treat forest insects as we do fruit insects or farm insects. It is out of the question to try to spray trees or treat them by any similar method. But when we know the life history of the insect and its habits and have positively determined the species involved we can recommend methods of control and suggest certain details in forest management and adjustment of business policy which, if intelligently applied, will bring about the desired result in a great many cases. Of course there are some insects which we can not control in this way.

Mr. HATGEN. Are these insects indigenous, so far as you have observed them?

Mr. HOPKINS. Our forest insects, as a rule, are not introduced, but belong to this country. There is, however, an outbreak of a larch sawfly in Michigan which is evidently an imported insect introduced into this country many years ago. It destroyed the larch in New England in 1885 to 1887, spread into Canada, and is now working its way westward as far as the Lake Michigan region.

Mr. SCOTT. Have you noticed any parasites of these native insects?

Mr. HOPKINS. Oh, yes; they all have numerous enemies, which in some cases will reduce them or keep them in control for a short time, and then they break out again. But, as it happens, in the case of some of the very worst enemies of forest trees, such as the Black Hills beetle, they have very few natural enemies. There is only one species of this group of insects in other parts of the world, and it is not likely that we could find parasites to introduce in order to control it. In some other cases it will probably be found that the introduction of parasites is the only thing that can be done, especially with insects which defoliate the trees.

Mr. SCOTT. Do you find vegetable parasites damaging our forests to any extent?

Mr. HOPKINS. Do you mean diseases?

Mr. SCOTT. No; in the way of mosses, or anything of that sort, growing out of the trees?

Mr. HOPKINS. Damaging the trees?

Mr. SCOTT. Yes.

Mr. HOPKINS. Yes; in the far West, in the Pacific coast region, and in some sections of the Rocky Mountain region the mistletoe is very injurious to the pines.

Mr. SCOTT. Is that a true mistletoe?

Mr. HOPKINS. Well, it belongs to the same class of plants; it is parasitic.

Mr. SCOTT. I have observed in the Rocky Mountains trees dead, apparently, from the ravages of a moss that hangs from them, that looks a good deal like the Spanish moss.

Mr. HOPKINS. Well, I think you will find that the moss grows on the living trees just as well, but it is more evident on the dead trees; and the chances are that those trees were killed by insects, fire, disease, or some other cause. As a rule, I believe, mosses are not detrimental to trees otherwise healthy.

Mr. SCOTT. They are long mosses, hanging down?

Mr. HOPKINS. Yes; somewhat similar to the moss on the trees in the Gulf States.

Mr. SCOTT. And you think that of themselves they do not kill the trees?

Mr. HOPKINS. No; but the mistletoe is very often quite injurious.

Mr. BROOKS. You said last year, I think, Mr. Hopkins, that there was an idea growing that what we had hitherto supposed were the remnants of earlier forest fires were really the remnants of beetle working in previous times.

Mr. HOPKINS. Yes; and this summer we have gotten a lot more data along that same line, and we are convinced that many of the denuded areas were first killed by insects and then the fires followed.

Mr. BROOKS. And that these invasions of insects are no new thing?

Mr. HOPKINS. Oh, no. Many of them, it is true, are undescribed species, but the fact of it is that until the work was begun by the Bureau of Entomology in 1902, practically nothing was known of the forest insects of this country. It is absolutely a new field. Our principal work has been directed toward the discovery of the principal enemies, determine the species, and study their life histories, in order to have definite facts on which to base conclusions. It is the best result we have attained so far, and will enable us to do much better work in the future. Our greatest need now is for men to go into these reserves and demonstrate to the forest officials the importance of doing things a certain way, adopting certain methods of management, and certain regulations relating to timber sales and the cutting of timber. If that is done in the right way, it will avoid enormous damages; if it is done in the wrong way it will encourage the multiplication of these pests. So that we have a great opportunity for the practical application of the information already acquired. There is, however, much more to be learned.

New things are constantly turning up—new features. We just have a report from eastern Washington, in the Wallowa reserve, one of the new reserves, where the ravages of an insect are so extensive that the starting of a forest fire is suggested by a correspondent in order to kill the insects. Now, that may be advisable under certain conditions, but the chances are that it would be the worst possible thing to do. The man who reported it probably considers that all of the dead trees are infested, which of course is not the case. The

trees are only infested by the destructive insects while the trees are living or dying. After they are dead the insects are gone; they never come back to them; so that when you see a large area of entirely dead timber you may know there are no insects in it that will kill other trees. They leave the trees before they are entirely dead, and go into the bark of living trees. These beetles go into the bark and excavate galleries between the bark and the wood, in which they deposit their eggs. The eggs hatching into small grubs, extend their work from the egg galleries and separate the bark around the entire trunk.

But in some of those western areas the trees are so vigorous and have so much vitality that even after they are completely girdled in that way the leaves will remain green for several months. In the spring the leaves begin to fade and turn yellow, and by the time they have changed to a reddish color these broods of insects are all out and going into living trees again. So that it is absolutely necessary to cut these trees and bark them within a given period, as in the case of the Black Hills beetle.

There is another one of these pine-bark beetles which occupies the Southern States from North Carolina to Texas which is equally as dangerous and is a constant menace to the pine forests of the entire South. It demonstrated its ability to destroy the forests in West Virginia and Virginia in 1901 and 1902. In two years it spread over an area of 75,000 square miles and practically exterminated the pine timber over hundreds of square miles. It got into the spruce forests in the high mountains and killed an immense lot of that.

But it was a southern insect, and during the winter of 1903 the severe cold, which reached 25° below zero in many localities, completely exterminated the beetle in that area. But it remains in the South and it has been one of the subjects for investigation throughout the Atlantic and Gulf States for several years, and we find it located all through the South. It only needs certain favorable conditions to multiply and work northward and make another similar invasion, and it is a constant menace to the pine forests of the South.

Mr. COCKS. Has your attention been called to trouble with the chestnut trees in the Eastern States?

Mr. HOPKINS. Yes, sir; that is a subject which has received special attention, but there is a complication which has rendered it impossible to arrive at any definite conclusion. There is a disease which evidently has as much to do with it as insects; in fact, the ravages of the insects appear to be secondary to the effects of a disease.

Mr. COCKS. Is it a new thing all through the eastern country?

Mr. HOPKINS. I think not. We find old trees which have been dead for many years.

Mr. COCKS. On Long Island it has been very much more prevalent within the last year or two—we have never noticed it before—and large numbers of chestnut trees there have died.

Mr. HOPKINS. Nearly all the chestnuts in some sections throughout the Appalachian region have died within the last fifty years; the older trees have died.

Mr. COCKS. Yes; but this is attacking vigorous trees.

Mr. HOPKINS. Vigorous young trees, yes. Well, it is apparently working on those, but older ones have been killed. And the effect of the disease tends to encourage the development of certain insect enemies which are capable of killing trees when they occur in sufficient numbers.

Mr. COCKS. Is the Department investigating the disease?

Mr. HOPKINS. I do not know; that would be the work of the Bureau of Plant Industry.

Mr. COCKS. Well, you have not done anything along that line, have you?

Mr. HOPKINS. Except in a general way. Of course, in studying the insects we always determine whether or not there is some other primary cause, and if we think it is caused by a disease we turn the subject over to the Bureau of Plant Industry, confining our work entirely to the investigation of the insects.

Mr. HENRY. Doctor, have you discovered any new facts connected with the elm-tree beetle?

Mr. HOPKINS. As the work is arranged now in the Bureau, the insects of the shade trees fall under another division. There is so much to do on strictly forest trees that it requires the entire attention of the section of forest-insect investigation.

Mr. HENRY. That is outside the scope of your work?

Mr. HOPKINS. Yes; that does not come in the work of forest-insect investigation as at present organized.

The CHAIRMAN. You are the gentleman who came up to Genesee some years ago, are you not?

Mr. HOPKINS. Yes, sir.

The CHAIRMAN. Do you know that pest that destroyed all our hickory trees has disappeared?

Mr. HOPKINS. Well, it killed most of the trees first.

The CHAIRMAN. No; there are a few left. There are five or six around my house that I was very anxious about, and I thought they were threatened once, but they have survived.

Mr. HOPKINS. We found a good many natural enemies of the beetle, which indicated that they would keep the insects in check.

The CHAIRMAN. But they ruined thousands and thousands of trees.

Mr. HOPKINS. Yes; in other sections it has also been very destructive. We had an opportunity to demonstrate what could be done with the same insect on Belle Isle, Detroit. There they have many hundreds of shellbark hickories, which they value greatly, because the park officials have what they call children's day about the time the nuts are ripe, and the children gather the nuts. Well, this beetle got in there and had killed some two hundred trees and was threatening the entire extermination of the hickories on the island.

When we made the investigation we marked certain trees, to indicate the kind of trees to cut, and recommended the immediate cutting and removal of these infested trees. The city officials took it up right away and arranged to do it. About that time a handle manufacturer came in and proposed to cut the trees and take them off the island for the timber, so that it cost the city nothing. And it was a complete success.

The CHAIRMAN. Removing the infested trees?

Mr. HOPKINS. Simply removing the trees infested by the broods of the insects. Not a tree has died since, I am told. I hear from

there every year, and it has been a complete success and has cost the city nothing. The trees were dying anyhow, and this man proposed to take them before they were entirely dead and remove them, and in that way solved the problem.

The CHAIRMAN. Those pests have disappeared entirely from our country, and the hickory trees now are perfectly healthy.

Mr. HOPKINS. Well, it is one of those pests which will drop out for a number of years and then come up again, so that you may look out for it. And it is of the greatest importance, when you see it beginning its work, to cut the trees that are infested, remove the bark, and burn it.

Mr. HASKINS. It seems true with reference to our maple trees and sugar orchards in Vermont. A few years ago the pests went through the forests and orchards, killing trees. They all disappeared in about two years.

STATEMENT OF C. L. MARLATT—Resumed.

The CHAIRMAN. On page 35 you ask for an increase of \$38,810 in your lump-sum appropriation.

Mr. MARLATT. The reason for that request, Mr. Chairman, is certain new work which we desire to undertake and for the normal increase of the work that is now under way.

The new work consists of several items, one being the establishment on the Pacific coast, in California, of a station for the investigation of the insect enemies of cereal crops. We have not carried our work of investigation on that subject on the Pacific coast, and there is a strong demand and a great need there for the establishment of a station for such work. All of the important insects which affect the cereals in the Mississippi Valley and in the East are already represented on the Pacific coast, or are coming in there, and the demand and need for that work is imperative. We would like to have an increase of at least \$5,000 to cover the experimental work that we wish to do in the Pacific cereal districts, with reference to wheat particularly.

The subject of the investigation of the apple insects, and particularly of the codling moth, was especially demanded last year by some of your members, and some work was done, on what appropriation we then had, in Nebraska, in Missouri, and in Kansas. It is desired to carry out that work on a better scale and do it more thoroughly, and that will call for a considerable increase in our appropriation. Five thousand dollars is the least amount on which any work of that sort, on the scale that it will need to be carried out, can be done.

Mr. SCOTT. Did you reach any results in that investigation, so far as it has been carried on?

Mr. MARLATT. We carried on some demonstrational work on the spraying of orchards in Nebraska. No earlier work has been done by us throughout the important apple region of Missouri or of Nebraska.

The CHAIRMAN. What sort of spraying do you mean? I thought the spraying of orchards was thoroughly understood. It is in my country, and in all those apple counties in New York State; it is thoroughly understood, to my personal knowledge.

Mr. MARLATT. The habits of the insect vary somewhat in different regions, and the work in Missouri and Nebraska and adjacent regions

is complicated by the presence of the apple scab, and our object is to discover the most economical means of treating these two enemies together. It is found that in most cases a spray can be combined for the joint treatment of both the apple scab and the codling moth. There has been a very strong effort from all three of these sections to have this work done; and we believe that it is legitimate and will do a great deal of good.

The CHAIRMAN. Are you actually spraying the orchards, or simply giving the formula for the spray?

Mr. MARLATT. No; we are doing actual demonstrational work.

The CHAIRMAN. To what extent?

Mr. MARLATT. The orchards are selected and the work is done in different localities in each of these States.

The CHAIRMAN. How many orchards have you sprayed in Nebraska?

Mr. MARLATT. We do a good deal of work in cooperation with the farmers themselves. We go among them and get them to give their orchards, or to agree to do the work under our supervision. We send men there to supervise the work and see that it is done properly.

The CHAIRMAN. The success of the spraying depends a good deal upon the time when it is done, does it not?

Mr. MARLATT. It depends altogether on the time when it is done. It depends also very much on the care with which it is done. A very slight failure to carry out proper details will nullify the work absolutely.

Mr. SCOTT. My recollection, Mr. Chairman, is that this work was authorized last year chiefly at the instance or at the request of Mr. Pollard, of Nebraska, with the understanding that it was to be chiefly, if not entirely, demonstrational work. I would like to inquire whether you have done anything except demonstrational work; whether you have learned anything in regard to the method or the time or the material of spraying that you did not know before you went in there.

Mr. MARLATT. We have made a very careful study of the insect itself. The whole spraying operation depends on the time of appearance of the insect, and we have made a very careful record and study of the appearance of the insect in the regions indicated, the studies being based on actual orchard investigations, laboratory studies, and studies of the insect as it is found in apple storage warehouses. All that is necessary as a basis is to find the exact time—i. e., best times to make the applications. That work is necessary to and is being done in conjunction with the demonstrational work.

The CHAIRMAN. Now, I am going to ask you a question that I have asked so often that I am ashamed of it. Is there not some work that you have been doing that is closed up, so that you can use the money for something else. Don't you ever close up anything over there? To a layman it seems rather extraordinary that each year there has got to be an increase for some new work. Is there no ending to any of these investigations?

Mr. MARLATT. That is a perfectly valid question, Mr. Chairman, and I should be glad to answer it to your satisfaction. These problems are big problems; they are not stopping. It is not possible to exterminate these insects. It is like disease; we have to have doctors all the time; even if they cure us of one attack we get another. The

control of insect pests is a big problem. It is one that will go on year after year, and I am afraid that your committee will be bothered with it for many years to come. You can not exterminate these insects; no insect in the world has ever been exterminated; they will go on doing their work, and there are new generations of ignorant farmers coming on the field all the time, who have to be instructed. Therefore this work must go on.

The CHAIRMAN. I do not think Mr. Cromer thinks his farmers are ignorant. Do you, Mr. Cromer?

Mr. CROMER. No; I think they are about as intelligent as yours.

Mr. MARLATT. I trust that no one will consider that I am disrespectful, because that is not my intention. The experience once gained is not lost. The information that has been gained in New York in the treatment of the codling moth is not lost. That applies to New York. The conditions in New York, however, are absolutely different from those in Nebraska and Missouri. In New York you are in a northern latitude. You have practically one brood of the codling moth a year. You have the very best of conditions; the treatment there is the simplest of any in the United States, and the results are the best. But you have different conditions in Nebraska and Missouri, i. e., two or three broods, and the conditions are even worse in more southern districts, as in Oklahoma or in New Mexico; the southern California conditions are much worse. Special investigations for these different districts must be made to determine the best time and the best means for controlling the pests in each district.

Mr. HASKINS. Then you can issue a bulletin to instruct everybody, can't you?

Mr. MARLATT. Certainly.

Mr. HASKINS. You have done it heretofore?

Mr. MARLATT. Yes, sir.

Another new line of work which we would like to conduct is in California on the citrus trees. We have not asked for money for work in California for many years, but there is a very large demand now for a careful investigation of the subject of fumigating the trees. It is a technical process; it consists in generating a gas, chemically, which is destructive to insect life.

The CHAIRMAN. Hydrocyanic-acid gas?

Mr. MARLATT. Hydrocyanic-acid gas. The process is on a good basis; it is one of the standard means of control in California; but the results are not always uniform. Trees are sometimes injured by careless methods or the results are unsatisfactory; and they desire the Department to take hold of it scientifically, and, with the aid of the Bureau of Entomology and the Department chemists, to put the thing on an exact basis. Part of this increase in the appropriation for which we have asked is to undertake this work in California.

The CHAIRMAN. One of the items for which you ask a certain portion of that increase is an investigation into the natural history of the Texas cattle tick. Now, there was a gentleman here last year, or the year before, who gave us a complete natural history of the Texas cattle tick. Mr. Field, you remember that?

Mr. FIELD. Yes.

The CHAIRMAN. Where was he from, Texas?

Mr. FIELD. He was a Louisiana man.

Mr. MARLATT. Professor Morgan, of Louisiana.

The CHAIRMAN. He gave us a complete natural history of the Texas cattle tick.

Mr. MARLATT. He probably knows as much about it as any man in the South, or any man in America, for that matter.

The CHAIRMAN. He seemed to us to know all about it.

Mr. MARLATT. He has made perhaps the most careful study of the life history of the tick that has been made; but that study, as he stated himself, was for Louisiana. He was here before this committee to urge the doing of work throughout the South similar to what he had done in Louisiana. And that is the object of this item that you have just read. The Texas cattle tick is the sole means, as you know, of introducing and keeping in existence the Texas fever; and the main means of controlling the fever—practically the sole means of controlling the fever—is in controlling the tick.

The control of the tick depends on a knowledge of its habits, and these vary in different districts in the South, owing to local conditions, climatic conditions, rainfall, etc. The same study which Professor Morgan made in Louisiana should be made in every State where the tick occurs. And this life-history study of the tick—not the control of the tick, which belongs to the Bureau of Animal Industry—the study of the life history of the tick, on which the rules of control can be based, properly comes within the jurisdiction of the Bureau of Entomology. We would like a sum of money to conduct that work in cooperation with the State experiment stations. We have actually begun such work, and it was believed that a portion of the appropriation of last year would be set aside for the entomological work; but through a misunderstanding the entire amount was taken by the Bureau of Animal Industry; and this life-history work, which is absolutely essential to a proper understanding of the subject, will have to be abandoned unless provided for in this bill.

Mr. SCOTT. Well, was not that appropriation of \$82,500 spent by the Bureau of Animal Industry on the theory that the life history of the insect was already understood, in all of its habitats?

Mr. MARLATT. I do not think they would make that claim.

Mr. SCOTT. Well, we have heard them very exhaustively here, and they have not intimated that there was anything about the bug that they did not know. They seemed to think it was merely a matter of following out the methods that have thus far been pursued.

Mr. FIELD. Mr. Scott, you remember they were only attacking them on two lines. One was to destroy them with the Beaumont oil; the other was to quarantine the infected cattle.

Mr. SCOTT. That is very true. They did not intimate that they might take up the attack from another direction, and I thought it was a fair presumption that they were attacking them on the only lines that they regarded as effective.

Mr. MARLATT. That is the very point that I want to bring in, Mr. Scott; that there is another important line, and perhaps the most important of all, along which you can attack the cattle tick, and that line is based on these life-history studies; in other words, the means of control known as pasture rotation. The disease coming solely from the tick, it follows that without the tick there can be no disease, and if you free the cattle from the tick and free the pasture from the

tick, the tick and the disease disappear together. Now, the tick spends only a portion of its life on the animal and the rest on the ground; and by studying the life history you can determine just the periods of pasture rotation by which you can have all the ticks fall off the cattle in one pasture and then transfer the cattle to a clean pasture and keep them there until the ticks all die in the first pasture, when the cattle may be reintroduced. You may have two or three pastures in the system, but that is the principle in a nutshell.

Mr. SCOTT. In the hearings that we had last year the gentlemen who spoke on those subjects seemed to speak with all possible definiteness, giving us the impression that they knew exactly how long a pasture would have to be abandoned for the ticks remaining on it to die, and that they knew the habits of the insect thoroughly.

Mr. MARLATT. That has been studied thoroughly only in one locality, Mr. Scott, in the work done by Mr. Morgan in Louisiana; and all the exact knowledge we have, practically, is based on that particular investigation.

Mr. SCOTT. Well, has there been a sufficient study of it elsewhere to lead you to believe that it has different life habits in other places?

Mr. MARLATT. Yes. The work that has already been conducted indicates distinctly such differences, and hence the need of a careful investigation of the whole subject—that is, of the whole life-history subject over the range of the tick.

The CHAIRMAN. Mr. Morgan says here that he has made a close study of the life history of this insect. He does not say whether it was simply in Louisiana.

Mr. MARLATT. I should be very glad, if you care to take the time, to have you hear Mr. Hunter, also, on this point of the cattle tick, because he has been directly associated with the work that we have already done in the South.

Mr. SCOTT. Stated very briefly, Mr. Marlatt, it was said here before us last year, if my memory is not at fault, that when the tick dropped from the animal to the ground it sought a near-by plant and laid its eggs, and when those eggs hatched the young ticks remained on that plant, crawling up to the top of it, until a cow went by and scraped them off, and that they got on the live stock in that way.

Mr. MARLATT. Yes.

Mr. SCOTT. And these gentlemen also told us the life of the tick and all of the details in regard to it. Now, you say that that study was in Louisiana only, and that there would be essential differences in Texas, for instance?

Mr. MARLATT. Undoubtedly. That is, the differences will be merely a matter of determining dates—the length of time which it would be safe to keep cattle in one pasture before transferring them to another. In other words, all these points of transfer are based on life-history periods. The life history of the tick will not change—that is, the routine life history will not change—but the dates when that routine is passed through, when the different periods are passed through, will change.

Mr. SCOTT. You think it would live longer in any one State than in any other, do you?

Mr. MARLATT. Yes.

The CHAIRMAN. It would live longer in the South than in the temperate zone?

Mr. MARLATT. Yes, sir.

Mr. ANDREWS. Mr. Marlatt, is it not true that in some places the ticks remain on the cattle all winter?

Mr. MARLATT. No; the tick does not remain on the cattle beyond a certain time—that is, when it has finished its growth on the animal it falls to the ground.

Mr. ANDREWS. What I mean is, it continues its life history the year round at some places?

Mr. MARLATT. On the cattle?

Mr. ANDREWS. Yes, sir. On the cattle and on the ground, and in other places the winter is so long that it dies out?

Mr. MARLATT. It requires the combination of the animal all the time to keep the tick going. If the animal can be dropped out the ticks that are on the ground will eventually die.

Mr. ANDREWS. You don't quite get my meaning. My thought is that in the colder sections a different method will be used because of the long winter, practically starving out the ticks, so that, unless they are carried into buildings or something like that, they will not continue.

Mr. MARLATT. That is true of the northern range of the tick and also beyond its normal range.

Mr. FIELD. Have you ever seen the tick throughout the year in our portion of the South, or have you observed that?

Mr. MARLATT. The one individual tick?

Mr. FIELD. I mean ticks that succeed each other on the animal; wouldn't they be exempt at some period of the year—in the winter time?

Mr. MARLATT. No; the animals would be continually reinfested if they were on infested territory—that is, the young ticks that are present all the time in your section would infest the animal throughout the year.

Mr. ANDREWS. Throughout the entire season?

Mr. MARLATT. Throughout the year.

The CHAIRMAN. Those are the items for which you ask the increase; is there any other?

Mr. MARLATT. Those are the principal items for which the increase was asked, in addition to the normal increase of the work as a whole. The work as a whole has a normal and legitimate increase. We are doing more work. As we do work the opportunity for work opens up, and there is naturally a normal increase, and we have asked a very small sum for that normal increase. Most of the sum indicated is for these special items of new work. I thank you.

The CHAIRMAN. Now, Doctor, we will hear you.

STATEMENT OF DR. ELWOOD MEAD.

Doctor MEAD. In my statement before the committee last year I called attention to what I regard as a very important condition existing in the semiarid belt, embracing about 300,000,000 acres of land, growing out of the high-priced farms in the East and the cheap land there, namely, that during a succession of rainy seasons a wave of immigration started into the semiarid region and was repeopleing a country that had been settled two or three times before. Having seen the previous attempts at farming without irrigation in

that region, and the hardship and suffering that resulted from failure, it seemed as though everything should be done to prevent that this time.

Therefore we asked, and this committee very kindly gave us, an increase in our appropriation to determine the methods of using limited water supplies or irregular water supplies, and to carry on an educational campaign among those settlers to induce them to make irrigation a feature of every farm wherever it was possible. Now, I believe the occurrences of the last year have made that work more important than it was when I appeared before the committee last year. Unfortunately, as I think, we have had another rainy season.

The CHAIRMAN. Unfortunately?

Doctor MEAD. Yes, sir; and that has been taken advantage of to work up an artificial boom in lands. Lands in a section of the country that is arid, if there is any arid region in this country, have risen within the past two years in certain places from \$1.50 an acre, their value for grazing purposes, to as high as \$20 an acre. Now, that is wholly an artificial value. Colonies are coming from the Eastern States under the belief that the climate has changed; that there has been a definite and permanent change in the climate. It has a fertile soil; it is an attractive country to look at, and they are making homes there. Now, there will come again dry years, and unless those people fortify themselves by special methods of cultivation, which they are slow to adopt—and, furthermore, by irrigation—the great majority of them that are on the extreme border line of that settlement will have to move out.

Now, what we have done is to begin the gathering of information that will enable us to give them reliable advice about what is possible in the way of irrigation, in the way of establishing a 5 or 10 acre irrigated tract as a feature of the dry farm; the places where they can safely undertake that, what it will cost them, what obstacles they will have to overcome, and the methods they ought to follow; and along with that, to so locate our experiments and demonstrations as to make them most impressive to those people, to reach as many of them as we possibly can, and get as many of them to adopt these methods at once as possible.

Now, we have not the information that is needed to give a beginner reliable advice; but we have learned something by the work that we started under this appropriation. You will understand that the great majority of those farmers who are taking up this work are from the East. They know nothing about irrigation in any form, and especially they know nothing about the peculiar requirements in using limited water supplies. We have established a number of stations in the West to illustrate that work.

The CHAIRMAN. How many?

Doctor MEAD. Four.

Mr. SCOTT. Where?

Doctor MEAD. One in Texas, one in Colorado, one on the border line of Colorado and Wyoming, and one on the border line of Wyoming and western Dakota; so as to string them along that debatable ground, from its southern to somewhere near its northern limit.

The CHAIRMAN. How many acres are there in each of these stations?

Doctor MEAD. The greater part of our work will be limited to 40 acres. We will endeavor to irrigate 10 acres, and if we are illustrating the utilization of underground waters, not over 5 or 10 acres. But at one of these stations we are demonstrating what can be done by the use of storm waters—the waters which run in the winter, waters which can be taken at other than the normal irrigation periods. We are irrigating there a considerable area, about 40 acres, in order to make it as impressive as possible.

Mr. BROOKS. These experimental farms are apart from the ordinary irrigation systems; that is, they do not get their water from any considerable streams?

Doctor MEAD. Oh, no. It is no use to demonstrate what can be done under ordinary irrigation methods. Those are understood. The object is to work out and demonstrate what can be done in the use of limited water supplies, which is the great difficulty of the man who goes on a dry farm.

Mr. BROOKS. And those are the conditions that obtain over the great mass of this 300,000,000 acres?

Doctor MEAD. Ninety per cent of it.

Mr. SCOTT. Have you succeeded in impounding enough storm water to be of any irrigation value?

Doctor MEAD. In that work we have not attempted to do that ourselves. What we have done has been to study the methods employed by others who are doing that, and the results they have obtained; and we have published a bulletin, which is in the press now, to show how that can be done. There is a great deal being done in that direction.

But on much of this uniform sloping plain the impounding of storm water will not be as important, nor available to as many people, as the utilization of underground waters. In much of that country the waters which come down out of the hills sink in the sand, and you have a broad sheet of soil water that can be pumped to the surface; so that the probabilities are that water from wells will be the reliance of the great majority of those people. Where you can utilize flood waters that come down the streams, simply by turning them out on the ground and starting the subsoil, that will be cheaper than impounding, cheaper than storing it, and a better plan; but we are not as yet prepared to make any definite recommendations about that until we have tried it two or three years ourselves. Now, last year we had a most remarkable result, but last year was a rainy year.

The CHAIRMAN. Well, you have had three or four rainy years, have you not?

Doctor MEAD. Yes, sir. Now, the settlement of that country that was discussed last year has gone on, so that to-day the necessity for educating those people and urging them and influencing them to protect themselves is greater than it was last year, because they have more money invested in land and there are more people there than there were before.

Mr. BROOKS. And the loss from a dry year would be much greater?

Doctor MEAD. Oh, yes; much greater. If a dry year were to come this year there would be a tremendous loss and disappointment there.

The CHAIRMAN. You think you are going to offset a dry year—you are going to succeed notwithstanding the dry year?

Doctor MEAD. I think that every man in the region of our investigations who can irrigate five acres of land, and do it properly, can live off of that five acres. He can not make any money, but he can live.

The CHAIRMAN. That would be principally from a well, Doctor?

Doctor MEAD. Yes.

The CHAIRMAN. Now, would the water of that well be affected by dry seasons—by a series of two or three dry seasons?

Doctor MEAD. No, sir; I do not think so; because in dry seasons there is not in every instance, and probably not in the majority of instances, so large a variation in the annual rainfall as in its distribution. It is a uniform rule of all arid regions that the smaller the annual rainfall the more irregularity there is in its distribution; and so the hazard there comes from two things—a falling off in the annual rainfall and the falling off in the summer months when it is needed.

Mr. SCOTT. Have you taken records there to show just how much the excess of rainfall has been for the past three or four years?

Doctor MEAD. Yes, sir. At Denver and Cheyenne the average is about 14 inches. The year before this (1905) it was 22 inches. There was an increase of 8 inches, as much as the annual rainfall in dry years. This year it was about 16 inches—not a very great increase, but it was well distributed; it came at the time when it was needed.

Mr. SCOTT. Well, you know the people who live out there insist that the difference which they think has taken place in the climate is not so much an actual increase in the annual rainfall as in the distribution.

Doctor MEAD. Yes.

Mr. SCOTT. And I wondered if your observations would confirm that.

Doctor MEAD. Oh, I think not; no.

Mr. SCOTT. You think that when a normal year again comes round they will find that the rainfall is just as unequally distributed as it was in any other dry year?

Doctor MEAD. Yes, sir. There are no natural causes to lead to any sweeping changes of that kind.

Mr. BROOKS. Over how long a period of years has your observation extended in that country?

Doctor MEAD. Twenty-four.

Mr. SCOTT. Well, will not the cost of installing an irrigation plant be within the reach of the average farmer?

Doctor MEAD. I think so; I do not think there is any question about that. There have been a great many installed. But my belief that that is so is not what is needed to lead men to install. Unless we believed that there would be no need of this investigation.

Mr. SCOTT. That is the reason I asked the question.

Doctor MEAD. Yes; and I feel perfectly confident of that. But we can not convince men that know nothing about the subject that it is so. You must be able to show them what it will cost, just what obstacles they are likely to encounter, what kind of machinery they ought to secure, and then how they ought to utilize that water. That we know; that is only a feature of it; that only needs demonstration,

so that they can come and see that part of it. We know that already. But these other things are new problems in irrigation in this country, and to show just how necessary it is to understand those I will give a little of our experience this year.

If you are going to use an engine for pumping your water, the question comes up first as to the horsepower that is needed, and then the type of engine that is to be employed. There is the question whether you can use gasoline or alcohol for fuel. We have been studying that this year. But there is another important question there, and that is what type of engine you are going to employ.

For farmers' use in this country there are two distinct types of engine, whether it is alcohol or gasoline. One is a cheap engine and one is an engine made so as to be perfectly regulated. Now, we obtained for use in this work a cheap engine. It was set up by an expert who understood his business, and it was sent to us by the manufacturer with the knowledge that it was to be used for experimental purposes. The inference is that they sent us one of their best engines. But after running it an hour the engine was in such condition that it had to be sent to the shop for repairs. Now, if a farmer had been running it and had not known enough to stop it in an hour it would have been ruined, and he would have said that irrigation by pumping was a failure. The year before last I saw 18 engines purchased by farmers and laid aside simply from a lack of knowledge of one fact, that they had their engine rated by the average work it was to do, whereas in all gas engines attached to pumping machinery the first stroke involves fully a third more work than the average load that is put on them, so there must be that reserve power in order to start them. Of course the farmers could not start them, and every time they wished to irrigate again there was the necessity of sending for an expert to make them go. It was simply a lack of knowledge of that one fundamental fact.

Now, what is needed is the carrying on of investigations that will enable us to tell farmers what kind of wells to put down, the amount of water required, how to plan and lay out irrigation, what it will cost, and how to apply the water, and to carry on that work as a demonstration work so that they can see it themselves. Now, there were fully 5,000 farmers came to Cheyenne last year to see that farm, and it has unquestionably had a practical influence on the country there, because, just as one illustration, there have been 16 reservoirs started—little storm-water reservoirs. In beginning the work we were given a ditch built fifteen years ago and never used since that time; it had been abandoned for fifteen years. We cleaned it out and turned the storm water on the field in October; gave it no irrigation. We could have irrigated this summer; there was plenty of water in the creek—normally that creek is dry in the summer time—but we did not turn in the water because we were showing the farmers what could be done in winter irrigation. When in Cheyenne this summer one of the old owners of the ditch came to me and said, "Now, I want to know if your use of that ditch is going to destroy our water right, because we have seen what you are doing. We are going to clean that ditch out and use it ourselves in the same way." And there has been a cleaning out of all the ditches along that stream, and it is going to result in a great extension in irrigation.

Mr. SCOTT. Do you mean by that that you just flooded the land with the water during the winter period?

Doctor MEAD. In October.

Mr. SCOTT. And got good results from it during the whole growing season?

Doctor MEAD. Yes; we got \$50. worth of potatoes to an acre this year—as fine potatoes as were grown anywhere.

Mr. BROOKS. In fact, there is a revolution going on in regard to the theory of irrigation—in regard to the amount of water that is needed and the time to apply it?

Doctor MEAD. Yes, sir. A change is taking place in irrigation practice in the irrigated districts everywhere in the utilization of water outside of the growing period. In the beginning of irrigation the farmer believed that he had to wait until the leaves had begun to wilt and then apply the water; that he should wait until the crop needed water, and that the application must be immediate. Now it is being found out that you can store up moisture in the subsoil; that if you have got flood waters, in autumn or spring, at a time when they would otherwise run to waste, you can pour them over the ground, put it in the subsoil, and it is available for the crop's use during the summer.

Mr. HAUGEN. Is that a recent discovery?

Doctor MEAD. It is a growing discovery; yes, sir; and a growing conviction that it is a true principle, so that its use is being extended. And probably this work that we did on that line was as impressive and as much talked about as anything that has been done.

The CHAIRMAN. Can you store it in rolling land—sharply rolling land?

Doctor MEAD. You don't irrigate much on sharply rolling land. You don't have to out there. There is so much smooth land to utilize.

The CHAIRMAN. I do not mean hilly land, but simply rolling land.

Doctor MEAD. Oh, you could not store it in any soil that does not have a very deep subsoil. You could not store it in a soil like the eastern soil, with its tenacious clays.

Mr. SCOTT. How much bigger was this ditch crop, in your judgment, than it would have been without that winter irrigation?

Doctor MEAD. We had some land planted to potatoes that was not winter irrigated, and we did not harvest it. It was not worth it.

Mr. FIELD. Doctor, where surface wells are relied upon, with a depth of water, say, of 25 feet, what would be the average cost of irrigating 5 acres of land?

Doctor MEAD. I think anywhere from \$300 to \$500. It depends on whether you use windmills or gasoline engines; whether you have a small storage reservoir or are attempting to irrigate from the well. But the range would be between \$300 and \$500.

Now, we have planned in our work next year to carry on these stations that we have established.

The CHAIRMAN. What arrangements have you with the owners of the land?

Doctor MEAD. We have a lease of those lands for as long as we wish to use them, for either no rental at all or (usually) a nominal rental of \$1 a year. At the last station to be established, in Colorado, the citizens of the county have put the farm in fine condition; they

have built us a fine barn there, and a tool house, and other things, so that we would not expend any money except for the purposes of our work. We wanted the people of the community, if they were interested, to do that for us, because we did not feel that the Government fund ought to be spent on any permanent improvements.

The CHAIRMAN. Is that owned by an individual or owned by the county?

Doctor MEAD. It is owned by an individual.

Mr. SCOTT. What disposition do you make of the crops that you raise on the land you control?

Doctor MEAD. Well, we have only had one crop.

The CHAIRMAN. They only started in July.

Mr. SCOTT. You spoke of \$50 worth of potatoes, and I wondered what you did with them.

Doctor MEAD. Yes; now this is what happened there: The Board of Trade at Cheyenne furnished us with over \$1,000. We turned this crop over to them, to use for whatever purpose they saw fit; they marketed the crop and turned the proceeds back to our use, if we needed them.

Mr. BROOKS. And there is a general disposition to cooperate, is there not?

Doctor MEAD. Oh, yes.

Mr. BROOKS. The people are interested enough, and appreciate the value of this work enough, to put some money into it themselves?

Doctor MEAD. Yes. Now, I will say that this has been our policy in the establishment of these stations: In the first place, it must be in a district where the conditions are such that experiments would be of benefit to a large number of people. Preliminary to doing anything in Colorado, we employed a man who was familiar with the country, who was formerly connected with the State experiment station, and had been employed by the station to study the State, to look over the whole of that region in Colorado and find out just what was being done, where the settlements were made, where they were winter irrigating, where there were large quantities of soil water; and as a result of his study of the State, running over five months, he reported that there were two places in the State that had the greatest advantages, would be accessible to the most people, and would lead to the largest extension and the largest adoption of that kind of irrigation.

Now, then, the next thing is to have it close to a town, so that people can come and see it, because actually seeing it is worth a great deal more than a bulletin or an illustration. The advantage of the station at Cheyenne was the fact that there were three railroads coming in there, so that people could come in and look it over. And so, in the station in Colorado, we have it on a part of an old town site. It is a part of one of the boom towns there.

Mr. BROOKS. One of those same towns that were depopulated after the last influx?

Doctor MEAD. Yes.

Mr. HAUGEN. Now, what is necessary for all these farmers to do in order to take care of themselves in these dry years? What will the educated farmer have to do?

Doctor MEAD. We will have there a reservoir that will be 100 feet by 200 feet, which will hold 4 feet of water. It will enable

us to irrigate 5 acres of land; it will give us a good head, and that enables us to use a small pump.

Mr. HAUGEN. How large a pump?

Doctor MEAD. Small capacity. We will use a 6-horsepower engine.

Mr. HAUGEN. What will be the number of gallons?

Doctor MEAD. Oh, it will carry about 20,000 gallons a day.

Mr. HAUGEN. About 6 horsepower?

Doctor MEAD. Yes.

Mr. HAUGEN. How much of the time would it have to run?

Doctor MEAD. Well, we want it to run twelve hours.

Mr. HAUGEN. Out of every twenty-four?

Doctor MEAD. Yes; just during the time that the man who is applying that water can—

Mr. HAUGEN. Just during that time?

Doctor MEAD. Just during that time. He will look after it.

Mr. HAUGEN. And how much time would that be? How often would it have to be?

Doctor MEAD. It will run every day in the summer months.

Mr. HAUGEN. The whole summer?

Doctor MEAD. Yes; it will run ever day.

Mr. HAUGEN. How much would that pump cost?

Doctor MEAD. I could not tell you. We have not purchased it.

Mr. HAUGEN. Well, you have an idea of what the whole outfit would cost?

Doctor MEAD. The whole apparatus would cost, probably, about \$500, for the reservoir and pump and a good well.

Mr. HAUGEN. You could put up the whole for \$500?

Doctor MEAD. Yes.

Mr. HAUGEN. Well, that would depend on the depth of the well, would it not?

Doctor MEAD. Yes.

Mr. HAUGEN. What is the depth of the well?

Doctor MEAD. Well, that is a deep well; we will go down about 80 feet.

Mr. HAUGEN. For instance, in Colorado quite a number of people have settled east of Denver on the flats there. I think they have to go somewhat deeper.

Doctor MEAD. In some places.

Mr. HAUGEN. Have you been experimenting there?

Doctor MEAD. Yes; we have the records of the whole of Colorado, from Denver west.

Mr. HAUGEN. I think the wells are probably 200 feet deep in some places.

Doctor MEAD. Yes.

Mr. HAUGEN. How much would it cost to put a well down 200 feet?

Doctor MEAD. Well, to put down your well and casing you would have to pay about \$2 or \$2.50 a foot for the first 100 feet; and you would probably have to pay more than that, depending on the ground, as you went farther down.

Mr. HAUGEN. Does that include the casing and drilling and all?

Doctor MEAD. Yes.

Mr. HAUGEN. How much power would be required to do the pumping in a 200-foot well?

Doctor MEAD. For 5 acres?

Mr. HAUGEN. Yes.

Doctor MEAD. About a 10-horsepower engine.

Mr. FIELD. What size of pipe do you use in these wells?

Doctor MEAD. In the one that we are putting down at Eads we are using 12-inch; the ones at Cheyenne were 10-inch.

Mr. HAUGEN. You said that you had been investigating the relative cost of gasoline and alcohol?

Doctor MEAD. Yes.

Mr. HAUGEN. What were the results?

Doctor MEAD. There was very little difference in the cost; that is, there is very little difference in the work they will perform. A gallon of alcohol will do just about the same work as a gallon of gasoline.

Mr. HAUGEN. In pumping?

Doctor MEAD. Yes, sir.

The CHAIRMAN. What is the difference in cost?

Doctor MEAD. I don't know what is going to result from denatured alcohol.

Mr. HAUGEN. Were you using the wood alcohol?

Doctor MEAD. No. In our tests we were able to get alcohol for testing with the duty off.

Mr. SCOTT. Assuming that the price of alcohol and gasoline is the same, and that the duty is the same, which is preferable, and for what reason?

Doctor MEAD. Alcohol is preferable on account of its greater safety; less liability of explosion. It is preferable also because it does not run an engine quite as badly as gasoline. But probably it needs a little nicer adjustment of an engine to get the full effect out of it; because it has to be operated under greater compression, and hence it is more likely to get out of order. So there are the two sides. But if the making of alcohol is taken up with a view to utilizing waste products, such as unsalable potatoes, refuse from sugar-beet factories, etc., in those sections of the West which are remote from railroads, alcohol, I believe, will be cheaper than gasoline.

Mr. HAUGEN. You think it can be made cheaper?

Doctor MEAD. Yes.

Mr. HAUGEN. Now, you have investigated as to various makes of pumps. What make do you suggest to these farmers to buy?

Doctor MEAD. We have not got to that point yet.

Mr. HAUGEN. Do you propose to do that after you get to that point?

Doctor MEAD. We will probably do this: We will be able to tell them whether to buy a well made and comparatively dear engine rather than a cheap grade of engine; or the reverse, if they can use the cheap engine and get just as much out of it. There are two distinct classes. You can put a line right down, and on one side of it are engines that are made with certain attachments and a certain degree of excellence that makes those high-priced engines; and on the other side are engines that are defective in regulation, made with fewer parts, which are cheap engines. There is quite a difference in the price of them.

Mr. HAUGEN. You said certain manufacturers had sent you an engine for trial?

Doctor MEAD. Yes.

Mr. HAUGEN. Well, was it not with the purpose of advertising these engines?

Doctor MEAD. No.

Mr. HAUGEN. Are they not liable to work some scheme of advertising through it?

Doctor MEAD. I don't think so. I think we will look out for that.

Mr. HAUGEN. Well, I think we should. I do not think we should advertise anyone at the expense of the Government.

Doctor MEAD. Oh, no.

The CHAIRMAN. You ask for a certain increase here.

Mr. BROOKS. May I ask Doctor Mead one question first?

The CHAIRMAN. Certainly.

Mr. BROOKS. Doctor Mead, would you say that you could or could not, in the great majority of cases, provide an ordinary farmer so that he could withstand a drought of one or two years without losing his investment in that region?

Doctor MEAD. I think there is no doubt of it. I think that any man that is in a position, either by storing storm water or (in those localities that have a deep subsoil) by winter irrigation and by wells, to irrigate 5 acres of land can live.

Mr. BROOKS. And unless he can adopt some such plan as that, from your experience of twenty-four years in that region, is there any way to prevent his losing his investment if there comes a period of dry years?

Doctor MEAD. No.

The CHAIRMAN. Now, the result of all this will be, if your scheme is successful, that during the cycle of heavy rains he may make a little money and during the cycles of dry weather he would be at a standstill?

Doctor MEAD. Yes, sir. During the cycle of wet weather he will make a great deal of money.

The CHAIRMAN. On 5 or 10 acres?

Doctor MEAD. No. This is to be used in connection with the cultivation of a larger area of land by dependence on rainfall.

The CHAIRMAN. Then on a big scale he would get no bigger return for his capital invested, after all?

Doctor MEAD. No; but the wet years then will be years of very great prosperity.

The CHAIRMAN. And the dry years will lick up his prosperity, and at the end of eight or ten dry years he would be just where he was before?

Doctor MEAD. No; not with cultivation.

The CHAIRMAN. It is not a thing for a man to go into with the idea of making any more than a bare living?

Doctor MEAD. Well, the difficulty with dry farming alone is that you can not estimate the hazard of it. You could not figure on coming out even or anything else. That is altogether a hazardous enterprise.

Mr. HAUGEN. Now, what is the estimated cost of this supply of water for the 5 acres per annum?

Doctor MEAD. The probabilities are that the outfit itself will cost anywhere from \$300 to \$500. Then it will cost whatever it costs to operate your machinery or to operate the ditch. Now, that is what we are endeavoring to find out.

Mr. HAUGEN. Well, you have a station, and I suppose you can keep track, can't you?

Doctor MEAD. Well, we have just started on this work.

Mr. HAUGEN. Haven't you an idea about the number of gallons that can be pumped by a 6-horsepower engine in twelve hours?

Doctor MEAD. We have a great many figures on pumping.

Mr. HAUGEN. What conclusions have you reached during the six months that you have been operating under the appropriation bill commencing July 1, 1906? What definite conclusions have you reached?

Doctor MEAD. This: That all the farmers need is definite instructions about how to select their machinery, how to lay out their irrigation, and the methods to be followed; that it will pay, if they do the work in the right way. But we have reached this definite conclusion, that before we undertake to advise them definitely about that, we must know more than we know now about some of the questions connected with building reservoirs, and some of the questions connected with the operating of pumping machinery on a small scale in this way, in order to give them practical advice about the difficulties that they will encounter.

Mr. HAUGEN. Well, I should think the very first thing you would ascertain would be the cost of the operation of your machinery. If it costs \$400 to operate machinery to irrigate 5 acres of land, we would know before starting that it is practically impossible to do so.

Mr. BROOKS. Oh, nobody could afford to spend \$400 or \$500 for a water supply for 5 acres.

Mr. LEVER. He would not have to spend every year that much, would he?

Doctor MEAD. Let me understand your question. You want to know the cost of operation from year to year?

Mr. HAUGEN. Yes; for so many acres.

Doctor MEAD. That cost will vary, we will say, from \$1 an acre up to \$5 or \$10 an acre. Those will be the limits. If it went to \$10 an acre, then it would not be profitable.

Mr. HAUGEN. To begin with, how many gallons of oil would it take to run one of those 6-horsepower engines? It would take at least 5 or 10 gallons—not less than 5?

Doctor MEAD. Well, I would not undertake to give those figures offhand.

Mr. HAUGEN. How can you estimate the cost per acre unless you estimate the cost of operating this pumping machinery?

Doctor MEAD. We have that, but I would not undertake to give it to you from memory. Now, we have the result of pumping—

Mr. HAUGEN. Well, but see here. We know the price of gasoline—about 22 cents a gallon.

Doctor MEAD. Yes.

Mr. HAUGEN. Well, I am quite certain that it would not take less than 5 gallons, and 5 gallons, at 22 cents, would be \$1.10. You have to do the pumping for several months, and you have an expense of \$1.10 a day. That would be \$33 every month for 5 acres.

Doctor MEAD. It does not take that much gasoline.

Mr. HAUGEN. Possibly not.

Doctor MEAD. No.

Mr. HAUGEN. I simply make that estimate, basing it on what it requires to run an automobile.

Doctor MEAD. But an automobile is a much more expensive type of machine than a pumping engine.

Mr. HAUGEN. You think it would require less than 5 gallons?

Doctor MEAD. Yes, sir.

Mr. BROOKS. Your estimate would still stand that a maximum of \$10 an acre would be a fair estimate of the cost?

Doctor MEAD. Yes. We have the results on a larger scale from hundreds of places where gasoline is used.

Mr. HAUGEN. When you say a large scale, how many acres does that include?

Doctor MEAD. Anywhere from 20 to 200.

Mr. HAUGEN. Yes. Well, what are the results? What is the cost?

Doctor MEAD. The expense runs all the way from \$2 to \$10 or \$12 an acre.

Mr. HAUGEN. Then you pump the water about 40 feet?

Doctor MEAD. We pump it all the way from 10 feet to nearly 200. You see, as you get very large machinery you can use much more effective machinery and the price per foot of lift goes down.

Mr. HAUGEN. One other question and I am through. A number of parties are concerned in building large water reservoirs and selling these water rights to settlers. Do you investigate as to the supply of these people with a view to protecting the settlers against buying something that is not in existence? Have you any knowledge of that?

Doctor MEAD. We have not gone into that feature. That is left almost entirely to the States.

Mr. HAUGEN. I know of a number of people who went out into the Western States and bought farms and bought water rights, paying, I think, \$20 or \$25 an acre. The question arose in my mind whether the supply of water was sufficient.

Doctor MEAD. What we have done has been to give advice to hundreds and hundreds of people as to the amount of water that they will need.

Mr. BROOKS. One question there. This experiment that Doctor Mead is conducting has nothing to do with the lands that are to be supplied from these large irrigation schemes. The area that he is attempting to cover is the area that is outside and the area that is being settled up very rapidly by boomers and by hundreds of people from your State and from Kansas and Nebraska. The proportion of this 300,000,000 acres that will lie under these irrigation schemes is very small comparatively; I have no figures, but roughly I would not say it would be a tenth.

Mr. HAUGEN. The object of my question was to find out whether there is any way of ascertaining the supply.

Mr. BROOKS. The supreme courts of the various States will tell you, and that is the only way I know of.

Mr. HAUGEN. An ordinary man would not know what a certain reservoir would supply; it takes an expert. These people do not know anything about it, and they go out there and buy the water

rights and pay the cash for them. What I am afraid of is that after a while they will find possibly that the reservoir does not come up to their expectation, and they will be disappointed. There ought to be some protection against that.

Mr. BROOKS. There ought to be, but when that time comes they will want the very experiments that Mr. Mead is conducting.

Mr. HAUGEN. Oh, I am in favor of this experiment.

Doctor MEAD. We are doing something along the line that you are speaking of, in one way. A great many of the companies that you are speaking of—and that is in another field of irrigation from the one we have been talking about—

Mr. HAUGEN. Yes; I know that.

Doctor MEAD (continuing). Provide a certain amount of water for irrigation; and we get, as I say, hundreds of inquiries every year from men who do not know anything about it to know if that contract provides them the water that they need; whether it is enough. Now, that is where the study and work that we have been carrying on for years past come in. We are able to tell them in nearly every part of the United States.

Mr. HAUGEN. I was very much interested in your statement two years ago about the seepage, etc. Now, would it be possible to connect this work with the work that you are doing? Would it be much of an expense for you to ascertain the supply and the possibility of these people complying with these contracts?

Doctor MEAD. Well, there are a great many places where we can give that information—that is, if they are places where we have been carrying on work and where we have had reason to look into the conditions. But the West is so large that there are a great many streams that we have never visited as yet and about which we have no information.

The CHAIRMAN. How do you propose to use this increased appropriation that you ask for—to have more demonstration farms?

Doctor MEAD. No; we intend to carry this work on just in the way and at about the same expenditure that is provided this year.

Mr. LEVER. Mr. Chairman, before he goes into that, I would like to ask Mr. Mead to give us some further information. He has been talking about that arid region out there; about taking the water off of that land and putting the water on the land. Let Mr. Mead tell us something about his drainage experiments, unless it comes a little later in the bill.

Doctor MEAD. I think I can answer the chairman's question and then go on.

Mr. LEVER. Very well.

Doctor MEAD. In our irrigation work a part of the increase is to enable us to employ three additional men to give practical advice and direction to irrigators in communities that are being settled up, where whole communities are having very serious difficulty in knowing how to prepare their land and apply water. Three years ago we placed in western Texas an expert irrigator from California, who held farmers' institutes in the towns, and had diagrams, and showed those farmers who were just taking up irrigation how to prepare their land, how to lay out their levels, how to grade the fields, and how to apply the water. We had expected to keep him in that section of Texas for one year and move him away; but every attempt to move

him has brought us hundreds of letters—not hundreds, but a great many letters—explaining how practically useful he was.

We have had the same sort of requests from other places, which we have had to deny. Part of this increase is to enable us to put one man in what is known as the Big Horn basin, where there is nearly half a million acres of land being brought under irrigation, to give those people advice about how to grade their land.

Mr. BROOKS. Would men coming into this area know anything about irrigation?

Doctor MEAD. No; a great majority are directly from the East.

Mr. BROOKS. Let me give one incident which came under my personal observation. This fall I went out to Colorado and visited one town in the eastern part of the State, 75 miles east of my home. I found that they were colonizing that country from the rain belt of eastern Kansas, and they had come into that section literally—not by and large, but literally—by the hundreds. And they were not men without some little means. On an average, I suppose, they had sold some farm in eastern Kansas and had gotten \$6,000 or \$8,000 or \$10,000. The machinery agents were there selling them steam plows, and they were buying them, putting \$2,000, or \$3,000 in some instances, into the machinery with which to run those dry farms; and as sure as season follows season, the time is coming, and in two or three years, when that machinery will not be worth junk, unless there is some auxiliary and ancillary method of making it useful.

There is one outfit in northern Colorado which is bringing people from Iowa in train-load lots. They go out and get special rates, and they are bringing out train loads of home seekers, and they usually catch about half of them. Those men are accustomed to the rain conditions of eastern Iowa, and have not the first idea of irrigation. Some of these lands I happen to know. They cost from 40 cents to \$1.20 an acre. They have been sold this year at all the way from \$4 to \$12 an acre to these men.

Mr. HAUGEN. They just throw away that much money, that is all.

Mr. LEVER. Why don't these people go south and settle in the good land that we have down there, where we have rain; in God's country?

Mr. BROOKS. You don't have such good boomers.

Mr. LEVER. That may be.

Mr. BROOKS. I want Mr. Mead to explain a little further along the line of Mr. Lever's suggestion. He has done some very interesting work in drainage, and I would like to have him tell us something about that.

Doctor MEAD. I will say that the work along that line is the only extension in our work that is provided in irrigation. Requests for that kind of work have come to us from the governor of Oregon, from Wyoming, and a number of places in Idaho, where eastern people are settling.

The CHAIRMAN. Are the experiment stations doing anything along these lines?

Doctor MEAD. Oh, yes.

The CHAIRMAN. Are they doing anything in cooperation with you? Are they spending any money in helping you out at all?

Doctor MEAD. Yes; they are cooperating with us. It is simply a big field.

The CHAIRMAN. Those people you have mentioned, you know, are citizens of those States. It seems to me the States ought to take care of them, look after them, and help them; not the United States.

Mr. HAUGEN. Is it not possible that the work that you are doing now is encouraging these people to settle in this arid land; bringing on the suffering and the trouble and the hereafter?

Doctor MEAD. Well, they are there all right.

The CHAIRMAN. And now they are so poor that they can't get out of there.

Doctor MEAD. Now, take the situation in Oregon. There is a section of the country in which the people who are coming in know nothing about how to grade land and how to prepare their fields; and the work that we did there two years ago was of such a practical benefit to the people there, and saved so many of them from making a waste of their time in trying to learn these things for themselves, that we have had requests from the governors, boards of trade, and farmers themselves, innumerable. Now, all that we intend to provide for there is simply to take up one of the best districts and send one expert there, and make that an object lesson. Then we have some additional work—that comes more directly under our drainage work. Now, the only increase is along that line, and a certain increase in our expenses in the irrigation work. Up to the passage of the rate bill, the railroads in the Western States have been very generous with us in transportation, and we have accepted it, and it has saved us quite a considerable expense. Now, whenever one of our men goes from one place to another, in his field of labors, he pays his fare, and that will add something to our expenditures.

Mr. LEVER. Now, Mr. Mead, what proportion of this appropriation here do you expend in this semiarid region on this dry-farm work?

Doctor MEAD. About one-fifth of it.

Mr. LEVER. Does the balance of it go to drainage operations and experiments?

Doctor MEAD. It is probable that our expenditures will be divided about evenly.

Mr. LEVER. Half and half?

Doctor MEAD. Yes; a little more, perhaps, for irrigation than drainage.

Mr. LEVER. Isn't it your opinion that drainage is a much more important proposition than opening up a few million acres out there?

Dr. MEAD. Well, it is a much more important proposition in the eastern half of the country; it is not in the West.

Mr. LEVER. How many millions of acres of overflowed swamp lands are there out in this country; have you any statistics?

Doctor MEAD. There are about 20,000,000 acres.

Mr. LEVER. And how many million in this semiarid region?

Doctor MEAD. It so happens that there is just about as much land needing reclamation by drainage as is believed can be reclaimed by irrigation. They come very nearly balancing.

Now, if there are no more inquiries about the irrigation, I will take up the drainage work.

The drainage work, as you all know, is taken up in connection with the relief of water-logged and alkali land in the West. In that work we have been assisted by a number of the States—Utah, Nebraska, California—and the work has been of great practical use—

fulness. Now, we have to make a careful study of districts, and we have advised regarding drainage plans, and large drainage districts have been formed that have brought back lands that were worthless. I think I called your attention last year to the results in the Yakima Valley and the reclamation of the lands there. Now we are carrying on work of that character in Utah and in California, where in the Fresno district there is an area that is 25 miles square that has been almost ruined by the rise of the water in the soil, and will have to be drained. We have also been asked during next year to take up two large important districts in California, the Modesto and Eureka, where the ground is rising.

The CHAIRMAN. You know how to handle that matter, don't you? It is with tile draining, is it not?

Doctor MEAD. Yes. It is altogether in an advisory capacity, and there is quite a problem in northern California—a large area of land that is known as "goose land" locally because of its swampy character.

Mr. BROOKS. Well, it gets its name from Goose Lake, does it not?

Doctor MEAD. No. It is in the Sacramento Valley, starting about 30 miles north of Sacramento, and running up for 20 or 30 miles farther. That we had included in our work for next year.

Mr. BROOKS. Does the State of California make any specific appropriation?

Doctor MEAD. Yes; the State of California makes an appropriation of \$15,000 for two years, and assists.

Mr. BROOKS. Is it specified that that shall be used in cooperation with you?

Doctor MEAD. Yes; that is expended under our direction.

Mr. BROOKS. That is a feasible thing, isn't it?

Doctor MEAD. Yes; it is a good idea. The State engineer of Colorado will recommend this year that Colorado do likewise.

Mr. BROOKS. If any extension of this work were contemplated, would it be your judgment that it would be wise to insert a condition that it should be limited to States which cooperate with us?

Doctor MEAD. No; I don't think I would do that.

Mr. BROOKS. I do not mean as to the old appropriation.

Doctor MEAD. You mean as to any increases?

Mr. BROOKS. Yes.

Doctor MEAD. Well, I think that would be a very good idea, because, as the chairman has said, it is their problem as well as that of the Federal Government.

The CHAIRMAN. These people are their citizens.

Doctor MEAD. And this cooperative work has worked well. We have never stopped that line of work where we have once started, because the State gets the benefit of men who have had a broad experience—experience outside of the State—and who are handling these difficult questions all the time.

Mr. BROOKS. Have you many requests for new work; that is, is this drainage work growing on your hands?

Doctor MEAD. Yes; we have a great many that we can not consider at all. What we are endeavoring to do in our drainage work is to do work that will deal with large interests and increase the knowledge of drainage practice where it will give us a better understanding of how to go at these things hereafter.

Now, the most important field of our drainage work is in the East, and the largest problems that we are dealing with now are along the South Atlantic seaboard. In South Carolina, for example, there is a stretch of country that runs along the entire coast, and it is from 15 to 50 miles wide. The greater part of it is exceedingly fertile; but it is useless to-day, and it is not only worthless for agriculture, but it is a menace to the towns. Take the city of Charleston. Until the land immediately around it was drained it was impossible for a white man to live in the suburbs of Charleston in the summer months. I think Mr. Lever will say that I am not exaggerating that.

Mr. LEVER. That is true, sir.

Doctor MEAD. Now, since it has been drained the land values there have gone up until some of those lands have sold for \$200 an acre, and the health conditions have entirely changed. Now, we have taken up there, in cooperation with the sanitary and drainage commission of the State, a study of their drainage problem along that line, and have made for the State Agricultural College a plan for the drainage of a certain area that has been given to the State experiment station in order to demonstrate what can be done with those swamp lands. The commission is cooperating with us and assisting us in these investigations now, and it is intended to broaden the scope of this work.

Mr. SCOTT. In California and in Utah, where you have spoken about installing drainage to relieve the ground of alkali, I can easily understand that there is a research problem there which requires expert study. Is there any such trouble as that in South Carolina, for example?

Doctor MEAD. In part; yes, sir; and in part it is simply giving them the benefit of expert advice about the method of going about this.

Mr. LEVER. In South Carolina your work is more educational than otherwise, is it not?

Doctor MEAD. Yes.

Mr. HAUGEN. Now, what are those methods, and what is that expert advice—on what line? Is there anything outside of digging a ditch, or placing a tile, or anything of that kind?

Doctor MEAD. No; but there is a great deal of difference in the way of digging ditches, and the location of ditches, the distance apart, and whether they shall be open ditches or tile ditches.

Mr. BROOKS. Well, those differences depend upon localities a good deal, do they not? That is to say, some land can be drained by one system of ditches, while other land must be handled in a different way?

Doctor MEAD. Yes; certainly.

Mr. HAUGEN. You would not expect a man to have a tile ditch costing at least \$10 an acre on land that would not be worth \$2 after it was drained?

Doctor MEAD. Oh, no.

Mr. HAUGEN. As I understand it, in many parts of the country good land—dry land—is selling at \$2 and \$3 an acre. You can't expect them to tile at large expense, \$10 or \$15 an acre?

Doctor MEAD. Well, we have not been called on to give any advice in conditions like that.

Mr. SCOTT. Doctor Mead, my question was suggested by this thought; that the people of this country have been draining swamp lands by means of tile and open ditches ever since the country was settled, you might say, and it struck me as a little strange that there should still remain any real troubles in connection with that work.

Doctor MEAD. Yes; I can understand that. Before I began the study of the drainage question that was exactly the feeling that I had. But when you come to see the problems that are in it, when you really come to get into the mastery of drainage, you find that there are a great many unsettled questions.

Mr. SCOTT. You find, then, that men have been working at a disadvantage; that they have been doing work in too costly a way, or something of that sort. Is that the idea?

Doctor MEAD. Yes. Let me give you one illustration: The swamp lands of Illinois, when drained, needed a certain kind of fertilizer to bring them into full bearing. The swamp lands of Wisconsin, when drained, would not respond at all, and so there grew up a great question in Wisconsin as to whether draining was profitable or not, a great many holding that the surest way to ruin your land; that you could do something with it when it was a swamp; you could cut ice off of it then; but that after it was drained it was worthless. Now, there was a fundamental question as to whether drainage was a benefit or an injury. And then, in the tule lands of California there is a soil that is very peculiar; it holds water like a sponge, almost. It is a great question there as to whether drains will relieve that land or what will happen or how far apart those drains ought to be. You are dealing, because of the peculiar character of that soil, with an entirely new problem in drainage. You can not find anywhere in literature or in experience anything that will definitely answer that.

Now, we go to Florida—there is the largest work that we have undertaken—at the request of the governor and the Congressional delegation. In southern Florida there is a tract of swamp land that covers nearly a third of the State. Almost half of Florida is swamp. The State has made an appropriation and begun work on the drainage of those lands; that is, they bought the machinery and started in to drain. Then the question came up as to whether drainage was feasible, or what would happen if they attempted to drain, and we have been asked to answer that question. It is a great, big question, this one of drainage.

Mr. SCOTT. As a matter of fact, you can't tell until the drainage has taken place, can you?

Doctor MEAD. Oh, I think we can; yes, sir.

Mr. HAUGEN. Now, you have gone to all these places. What did you discover? What benefit do we have from that?

Doctor MEAD. In Wisconsin, for instance, it was our conclusion that those lands could be profitably drained, and that was as far as our work went. They are now draining them and it is profitable.

Mr. HAUGEN. What change in the drainage did you suggest to make it profitable?

Doctor MEAD. It was simply a determination of that question. But those have to be treated differently from the lands of Illinois.

Mr. HAUGEN. What was the treatment in Wisconsin?

Doctor MEAD. The application of a different kind of fertilizer. One requires nitrates and the other phosphates.

Mr. SCOTT. You could not make that application of fertilizer until the lands had been drained, could you?

Doctor MEAD. No.

Mr. SCOTT. That was what I meant a little while ago when I asked you whether you could determine whether the lands were worth draining until they had been drained and you could make your application of fertilizer and follow up that treatment.

Doctor MEAD. Well, here it was simply a case of a man who had had wide experience in drainage expressing his judgment. He could not tell; he could not be absolutely certain of it. He could only advise as to the probabilities, and then advise as to the subsequent handling.

Mr. BROOKS. And you could make a small experimental test there which would be proof of the pudding?

Doctor MEAD. Yes; and that is what we are doing in a great many cases where it is a matter of doubt.

Mr. HAUGEN. Have you carried on any experiments with drainage in Iowa?

Doctor MEAD. We have never carried on any experiments, but we have acted in an advisory capacity in a great many of your districts there with regard to questions about which they were in doubt.

Mr. HAUGEN. While riding on the train last summer, some one on the train pointed out to me a large flat of ground which was covered with ducks. It seems that some eastern party had come into Iowa, acting under the instruction and advice of some scientists and others with a certain knowledge of drainage, and invested several thousand dollars for drainage. He got nothing but ducks, and never has since.

Mr. CROMER. He got a good crop of ducks.

Mr. HAUGEN. A very good crop of ducks. Have you had any such experience?

Doctor MEAD. No.

Mr. HAUGEN. This is a large tract of land, of several sections.

Doctor MEAD. I think I can state with great confidence that nothing of that kind has ever happened where we have been consulted.

Mr. HAUGEN. Exactly what you have done in South Carolina? Did you go yourself or send a man down there?

Doctor MEAD. We had a party down there; yes, sir.

Mr. HAUGEN. Now, what did that party actually do in actual work?

Doctor MEAD. They have prepared a plan for the drainage of the parishes surrounding Charleston.

The CHAIRMAN. For individual owners?

Doctor MEAD. Well, the work is being done by the State commission.

The CHAIRMAN. But you said your party prepared plans?

Doctor MEAD. We prepared it for the commission, not for individual owners—for the State commission or, rather, the district commission.

The CHAIRMAN. What were those plans?

Doctor MEAD. They showed where drains should be dug.

The CHAIRMAN. You first surveyed the land?

Doctor MEAD. Yes.

The CHAIRMAN. And got your grades?

Doctor MEAD. Yes.

The CHAIRMAN. And then laid out your ditches on the plat or working plan?

Doctor MEAD. Yes; we just made a working plan for the commission. Now the commission is building those drains with convict labor.

The CHAIRMAN. And that will be eventually farm land, or is it close enough to Charleston for—

Doctor MEAD. Farm lands.

Mr. LEVER. They are used for trucking purposes.

The CHAIRMAN. The lands are owned by individuals?

Doctor MEAD. Yes.

Mr. HAUGEN. How do you treat these peat marshes when they are drained?

Doctor MEAD. We have never had that problem to deal with yet.

Mr. HAUGEN. You spoke of Illinois?

Doctor MEAD. That was the farm land there.

Mr. HAUGEN. They have considerable peat marsh in Illinois, have they not?

Doctor MEAD. The lands that I was thinking of in Illinois were not peat marshes; they were the black soils.

The CHAIRMAN. Let me insert one more question about this South Carolina business. Do you know whether the owners of those lands pay the commission for the ditching?

Doctor MEAD. I don't know.

The CHAIRMAN. Who pays the cost of that ditching, in other words?

Doctor MEAD. I think that the ditching is done by the State.

The CHAIRMAN. By the State for the benefit of the individual?

Doctor MEAD. It is done by the commission, and then the commission repays the State in taxes. I think that is the case.

The CHAIRMAN. Sends it back on the land?

Doctor MEAD. Yes.

The CHAIRMAN. We do that in New York. It is done under the drainage laws.

Doctor MEAD. Except that in ordinary drainage law it is just a commission of the landowners that handles this. This is a commission that is under the authority of the State.

The CHAIRMAN. Now tell me, Doctor Mead, what have your people done there in South Carolina that a good State engineer with his corps of engineers could not have done?

Doctor MEAD. Well, if you had a good one, I think he might have done just as well as we did. We are not claiming that we do any more than anyone else could do.

The CHAIRMAN. But your people have had rather a wider experience than the local men?

Doctor MEAD. They have a broader experience. I want to explain about this. I do not take it that you are speaking seriously.

The CHAIRMAN. I think we go too far. You know I have always thought that. It is an individual opinion, but I have always felt that there was too much paternalism in the care of the Department

appropriations. I have always contended against it—ineffectually, I am sorry to say.

Doctor MEAD. Well, it is against the tendency of the times. This was the situation down there that led us to take hold of this matter. Here was a whole section of a State that was discouraged, poor, and there was a great difference of opinion as to whether it was feasible to do anything. Now I do not believe it would have been possible from inside the State to have worked that as effectively as to have men who were known to have had wide experience in that particular work take hold and assist it by expert advice.

Mr. SCOTT. In other words, you think your work inspired more confidence than the work of local people would have done?

Doctor MEAD. Yes. And it is of such value in the way of developing the country. South Carolina is a part of the United States. It is certain that no work that the Department does, or any other Department does, has brought larger returns in the upbuilding of the nation.

Mr. LEVER. Do you say that some of that drained land sold for \$500 an acre after your experience down there?

Doctor MEAD. After it was drained; yes, sir.

Mr. HENRY. Practically it was worthless?

Doctor MEAD. It was worse than worthless, because it was a menace to the surrounding country.

Now, going on, there is a work that we ought to undertake this year—

Mr. BROOKS. Before you go into that, there is one question which I omitted to ask you, and which I think will be important. For two successive years now you have elaborated these propositions with regard to your irrigation work, and particularly in the dry farming, and Doctor Galloway has come on and elaborated what his Bureau has been doing in dry farming, and they are doing a great deal. Now, is there any conflict between your two Bureaus, and is there any duplication of work there?

Doctor MEAD. Absolutely none. It is a clear-cut line. He is showing what can be done with dry farming—

Mr. SCOTT. Without water?

Doctor MEAD. Without water. We are showing what can be done in the way of irrigation to create better conditions and protect the dry farm. The two lines are as clear-cut as any two lines of Government work.

The CHAIRMAN. His experiments cover the conservation of the spring and winter rains in deep plowed lands, do they not?

Doctor MEAD. I think good cultivation is a feature of it; yes, sir.

Mr. BROOKS. Let us have no misapprehension of that. Doctor Galloway's work is wholly in cultural methods and in the deep plowing and subsoiling and things of that sort. He has nothing to do with conservation or surface or subterranean waters, except as it naturally follows a little, of course, from the deep plowing. The deep plowing is this Campbell soil culture, if there is anything to it.

Mr. HAUGEN. Well, Doctor Galloway's line of work is teaching how to treat the soil, is it not?

Mr. BROOKS. Yes.

Mr. HAUGEN. The ground?

Mr. BROOKS. And the crops.

Mr. HAUGEN. But I understood you to say that you were teaching them how to treat the soil, for instance, in Wisconsin.

Doctor MEAD. Oh, not at all, only where it is a drainage problem; where there is a feature of drainage.

Mr. HAUGEN. I understood you to say you had made no study of the peat marshes at all?

Doctor MEAD. No, sir. The only study we have made of the peat marshes is their capacity to hold water and the way drains ought to be placed in them—the depth and distance apart. We have done very little with that.

Mr. HENRY. Can you make anything of the peat lands after they are drained.

Doctor MEAD. Why, I think so; there are some of them that you can—the California land, for instance—

Mr. HENRY. I mean lands that are properly peat lands—fuel material?

Doctor MEAD. Oh, no; no.

The CHAIRMAN. You were about to take up something else, Doctor Mead, were you not?

Doctor MEAD. Yes. I wanted to have you understand this feature of work like that at Charleston, or any of the other work; that in doing this work we always keep the feature of investigation, of the development of irrigation practice, of dealing with new conditions. In our bulletins and reports and through all our work the investigation side is constantly being strengthened by every piece of work that we do.

Now, going to one of the pieces of work that we think should be taken up this year, that is a study of the method of reclaiming the tide marshes. Along the whole Atlantic seaboard there is one of the largest bodies of unused land, a great deal of it in our cities; and we are getting a great many inquiries as to how that land ought to be handled—what sort of plan should be adopted to reclaim those lands. We have had this fall three visits from members of the Massachusetts legislature about that. What we think should be done is to gather all the data that can be had on that subject, in this country and abroad, from the literature of it, and prepare a governmental report on the methods to be followed.

Mr. SCOTT. Are not those marshes below tide level?

Doctor MEAD. Only at high tide.

Mr. SCOTT. Well, is there anything to be done except to build a sea wall?

Doctor MEAD. That would be one part of it; yes, sir.

Mr. SCOTT. Is not that perfectly obvious? Do you have to spend very much money to find out that in order to keep the tide from coming in you have got to get something to keep it out?

Doctor MEAD. Oh, we know that. But the people who wish to do that work need to know more than is now known about the ability to build those walls; how to overcome the natural difficulties. It is not building a wall right straight along; you find that all those tide marshes are broken up by inlets. We must remember that we have got to consider not only the wall, but the way of getting over the water that is behind the wall. And there is a score of practical questions connected with it that we know nothing about. The idea

was to make a study of conditions in other countries and get out a report.

Mr. SCOTT. Have you made any estimate of the amount of money you would spend on that?

Doctor MEAD. We think probably about \$5,000.

The CHAIRMAN. Have you had any other applications for expert advice on the tide-water marshes except from Massachusetts?

Doctor MEAD. Oh, yes; we have had them from all along the seaboard—a great many inquiries.

The CHAIRMAN. Now, what is the hope of those tide marshes; what would be your idea of what can be done with them?

Doctor MEAD. Well, I believe, in a general way, that the tide marshes of this country will mean more than they do to Holland and Germany; that we are going to reclaim them, and we are going to take up that work in the very near future.

The CHAIRMAN. They have done it in Holland, but it is a system of dikes and pumping the water out, isn't it?

Doctor MEAD. The same question we have; no more difficult.

The CHAIRMAN. In fact, we will need them to support the population, is that it?

Doctor MEAD. Yes.

Mr. SCOTT. It is because this work has been so thoroughly done in other countries that it struck me that there ought not to be much of a problem about it.

Doctor MEAD. Well, I don't think we will ever know that until we come to study it out in the light of what has been done in other countries. That is just what we want to find out.

The CHAIRMAN. Well, you can't study it until somebody dikes them and goes to pumping the water out, to see what the conditions are?

Doctor MEAD. See what the conditions are; yes. It is not necessary to dike them to do that. You can tell from the natural conditions.

The CHAIRMAN. Isn't it necessary to get the waters out first to find out what is necessary, just as you found out what was necessary in the marshes of Wisconsin?

Doctor MEAD. The water is out at low tide.

The CHAIRMAN. Is there not a certain soft saturation, though, that remains, that would disappear in time, after the water was cut out, and then the conditions would be different?

Doctor MEAD. Yes.

Mr. BROOKS. Doctor True made a suggestion to me. It is partly my fault—I directed Doctor Mead very largely to dry farming. That is only a small portion of his work in irrigation investigation.

The CHAIRMAN. Doctor, what headway are you making in getting uniform water laws throughout the several States? I remember when this irrigation paragraph was first started that was one point.

Mr. SCOTT. That was the only thing it was intended for.

The CHAIRMAN. Yes.

Doctor MEAD. Let me read a letter. It is a letter that came to-day.

This is a letter from the professor of economics of the University of Oregon:

I am very much interested—

I will say that I was asked by a commission appointed in Oregon to meet with them in December, in respect to an irrigation law that this commission was appointed to frame, and I had a letter relative to that meeting from this professor.

I am very much interested in what you say as to the advisable policy of Oregon with her water-power resources. I am glad that the committee drafting the bill for the irrigation code secured your counsel. I believe, however, the measure they submit does not cover rights and titles to the use of streams for power purposes. I am very anxious to have a copy of your bulletin dealing with the water laws of Italy, and especially that portion of it covering the policy and requirement of titles to water. I was fortunate enough to get possession of a copy of your Irrigation Institutions three years ago, and have been impressed with the measure of influence it has developed in the different State codes. Its influence is not limited to matters pertaining to irrigation, for it illustrates so strongly and tangibly the idea of common interests and public utilities that this will be more easily discerned in the other relations of business and life.

That is a man who is studying. I simply read that letter because he is a student of these things in a broad way. And I think anyone who is familiar with the irrigation laws of the West will realize what a movement there has been toward uniformity and toward the adoption of those principles in water law that our investigation brought out as a result of its studies.

The CHAIRMAN. Disclosed as necessary for the proper and just division of the water?

Doctor MEAD. Yes, sir.

Mr. BROOKS. It is only just to Doctor Mead to say that that book on Irrigation Institutes has become a very authoritative publication in the arid-land States, and particularly in connection with inter and intra state problems. That is illustrated by this case that the Supreme Court now has under consideration relative to the question of the interstate rights between Kansas and Colorado. That is a test case for all those States. That is a big question; and this Department has done a great lot of work to solve it, too.

Doctor MEAD. And our work is not done. [Laughter.] Now, we are not asking for any money—scarcely any money—along that line now; but I want to read a part of another letter, which was written in Salem, Oreg., on the 2d:

There appears a considerable sentiment—

Now, I will say that in my meeting with that commission I advised them to take a further step in the protection of public interests in water than had ever been taken by any legislation heretofore, and that was with respect to the acquirement of titles to water, especially for power purposes; that those rights should be treated exactly like a franchise for a city; and, like a franchise for a city, should be limited to a definite number of years instead of being made perpetual. It used to be the case that whenever a franchise was asked for in a State they would issue a perpetual franchise just as readily as one limited in time. To-day no one defends that as correct policy. And I told this commission that that idea was new in this country, but that it was not new in Europe; and, in fact, it is the enlightened policy of Europe. So he says:

There appears a considerable sentiment in favor of limiting rights to the use of water for the development of power to a limited period of years, as suggested in your talk when in Portland. It appears that section 2—

then he goes on. So that that feature of our work, while not costing the Government anything, has not lost its vitality or its usefulness.

Whereupon (at 4.45 p. m.) the committee adjourned.

SUBCOMMITTEE ON APPROPRIATIONS,
COMMITTEE ON AGRICULTURE,
HOUSE OF REPRESENTATIVES,
Washington, D. C., Saturday, January 19, 1907.

The subcommittee on appropriations met this day, at 10.30 o'clock a. m., Hon. James W. Wadsworth (chairman) in the chair.

The CHAIRMAN. Doctor Howard, we would like to have a little talk with you in regard to the expenditures incurred under the cotton boll weevil and tick investigations.

**STATEMENTS OF MR. L. O. HOWARD, CHIEF ENTOMOLOGIST;
MR. W. D. HUNTER, IN CHARGE OF INVESTIGATIONS, BUREAU
OF ENTOMOLOGY, AND MR. BEVERLY T. GALLOWAY, CHIEF
BUREAU OF PLANT INDUSTRY, DEPARTMENT OF AGRICULTURE.**

Mr. HOWARD. Mr. Hunter, who is here with me, is more familiar—much more familiar—with the details than I am. How would it do to ask him, and let me sit by and listen? I think you would get more specific answers in that way, Mr. Wadsworth.

The CHAIRMAN. In regard to the cotton boll weevil?

Mr. HOWARD. Both as to the weevil and as to the tick. While I can talk in a general way, he can tell you about the particulars better than I can.

The CHAIRMAN. We want to know something about the expenses of these investigations.

Mr. HOWARD. Mr. Hunter has drawn up a general statement, which is before you now.

The CHAIRMAN. Then we will hear Doctor Hunter.

Mr. SCOTT. What we want, I think, is to get from Doctor Hunter the details of the expenses of the Entomological Bureau, with a view to ascertaining the amount expended for these various objects. For instance, as to the moths, we find there has been expended about \$30,000 for salaries, and I wondered what has been done with the other \$50,000.

The CHAIRMAN. Yes. Doctor Howard, your appropriation for moths in Massachusetts and the New England States was \$82,500, and you say: "Salaries: Special agent in Washington, \$1,200; 1 entomological draftsman, \$1,000; total per annum, \$2,200." Then out of Washington, "1 special agent, \$2,000; 1 special agent, \$1,800; 1 assistant at \$1,200; 1 at \$900." That is what you refer to, Mr. Scott?

Mr. SCOTT. Yes; in and out of Washington. I thought it amounted to \$35,000.

The CHAIRMAN. On page 35 you will find the lump sum for the Entomological Bureau. That is not the specific appropriation for moths.

Mr. SCOTT. I had in mind a different one. Oh, I see, it was the cotton-boll weevil, in the Bureau of Entomology, that I intended to refer to. There we find that the salaries in Washington are \$3,200, and outside of Washington \$32,210, and that makes \$35,410 out of a total appropriation of \$82,500, leaving about \$50,000 which must have been expended in some other way than in salaries.

Mr. HUNTER. That is for the fiscal year 1906?

Mr. SCOTT. Yes; for the fiscal year ending June 30, 1906.

Mr. HUNTER. Have you seen a copy of this statement? [Submits detailed statement in typewriting.]

Mr. SCOTT. That is for the calendar year 1906?

Mr. HUNTER. No; for the fiscal year ending June 30, 1906.

Mr. SCOTT. Of course this does not show what has been spent this year—in the fiscal year ending June 30, 1907?

Mr. HUNTER. No, sir; that is on a separate statement, which I will submit. [Submits following statement:]

UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF ENTOMOLOGY,
Washington, D. C., January 19, 1907.

SIR: In compliance with the request of your letter of the 17th instant I transmit herewith (1) a statement showing expenditures from the cotton boll weevil investigation, Bureau of Entomology, 1906, and (2) a statement relating to the 1907 appropriation, including expenditures up to January 1, 1907, and liabilities from that date to June 30, 1907. These statements have been prepared in as much detail as the time permits.

Respectfully,

L. O. HOWARD,
Chief of Bureau.

HON. JAMES W. WADSWORTH,
House of Representatives, Washington, D. C.

Statement relating to appropriation for cotton boll weevil investigations, entomology, 1907, showing expenditures up to December 31, 1906, and liabilities to June 30, 1907.

	Expended to Dec. 31, 1906.	Estimated to June 30, 1906.
Headquarters of investigation, Dallas, Tex.:		
Cotton seed	\$143.56	\$400.00
Fertilizers		3,000.00
Photographic supplies	89.90	150.00
Rent	240.00	240.00
Livery	240.00	240.00
Salaries—		
Entomologists—		
W. D. Hunter	1,375.00	1,375.00
W. E. Hinds	900.00	900.00
F. C. Bishopp	700.00	700.00
J. C. Crawford	700.00	700.00
W. A. Hooker	700.00	700.00
A. C. Morgan	700.00	700.00
W. D. Pierce	700.00	700.00
F. C. Pratt	800.00	800.00
W. W. Yothers	700.00	700.00
J. D. Mitchell	600.00	600.00
R. A. Cushman	600.00	600.00
C. R. Jones	550.00	550.00
W. H. Gilson	300.00	300.00
Clerks—		
Edward Bleis	600.00	600.00
Roy Sowell	450.00	450.00
Laborer, A. K. Pettit	210.00	210.00
Expenses for travelling, supplies, and labor incurred by above men	10,344.64	10,866.96
Expenses on trips of inspection by Chief of Bureau	114.40	200.00
Expenses, miscellaneous: Labor, furniture, supplies, post-office box rent, stationery, gas, electric light, drayage, express, etc.	480.00	400.00
Reserve fund for use in emergencies such as the eradication of isolated colonies		5,000.00

Statement relating to appropriation for cotton boll weevil investigations, entomology, 1907, etc.—Continued.

	Expended to Dec. 31, 1906.	Estimated to June 30, 1906.
Headquarters of investigation, Dallas, Tex.—Continued.		
Contracts covering field experimental work with following parties—		
M. L. Cavallin		\$83.52
J. F. Skoberg		182.00
C. O. Johnson		162.36
P. A. Svenson		261.82
B. F. Smith		91.85
B. L. Holmes		18.24
H. K. Willbern		126.45
R. K. Traylor		26.04
H. C. Coates		44.60
C. J. Damstrom		118.32
John Traylor		22.96
Nels Larson		131.25
Mrs. B. F. Ward		52.67
Chas. Peterson		185.24
Edward Wilson		155.76
Gust Swanson		233.52
C. Samuelson		54.24
Olof Markinson		22.00
Victor Damstrom		102.41
N. S. Sodekson		200.00
J. L. Lowrance		300.00
Seth Burnett		40.40
W. T. Franklin		132.75
Expenditures in Washington:		
Salary—		
1 entomologist, E. A. Schwarz	\$1,000.00	1,000.00
1 clerk, A. J. Leister	600.00	700.00
Expenses, miscellaneous: Supplies, stationery, apparatus, typewriter, etc.	772.57	800.00
Work in cooperation with Louisiana Crop Pest Commission, \$10,000:		
Salary, entomologists—		
Wilton Newell	600.00	600.00
A. W. Buckner	600.00	600.00
C. W. Flynn	600.00	600.00
J. B. Garrett	600.00	600.00
Expenses: Letters of authorization covering traveling and other expenses for above men	1,482.47	3,617.53
Work in cooperation with Texas Experiment Station:		
Salary, one entomologist, C. E. Sanborn	480.00	480.00
Expenses	510.00	490.00
Allotment for joint investigations between the Bureau of Entomology and the Bureau of Plant Industry, \$10,000:		
(The Bureau of Entomology has allotted \$10,000 and the Bureau of Plant Industry \$12,000 for a joint investigation relating to problems more or less in the domain of both bureaus. It includes a study of the effi- ciency of the weevil, resistance of adaptability of the cotton plant, local bionimic factors and bionimic explorations of Central American cotton culture.)		
Salary—		
Argyle McLachlan	600.00	600.00
C. B. Doyle	600.00	600.00
G. P. Goll	600.00	600.00
B. T. Jordan	360.00	360.00
L. B. Rose	360.00	360.00
R. M. Meade	214.17	240.00
Expenses: Letters of authorization covering traveling and other ex- penses for above men	1,034.86	2,465.14
Rent	96.00	96.00
Total	33,347.57	48,639.03

RECAPITULATION.

Appropriation	\$85,000.00
Expended to December 31, 1906	33,347.57
Estimated to June 30, 1907	48,639.03
Balance	3,013.40
Total	85,000.00

The CHAIRMAN. This shows expenditures to December 31, 1906.

Mr. SCOTT. That is what we wanted to look to particularly. I find one item in this statement which you have just presented, showing expenditures up to December 31, 1906, and the liabilities to June 30, 1907—I find one item, "Expenses for traveling, supplies, and

labor incurred by above men, \$10,324.64"—expenses to December 31, 1906; and an estimate of about the same amount to June 30, 1907, the rest of the year. That would make in the neighborhood of \$21,000 altogether. Just what do you mean by "labor incurred?"

Mr. HUNTER. That is a minor item included to make the list complete. Each one of these men has a letter authorizing him to perform travel and to pay such minor charges as are necessitated by his work. For example, a man may be sent out from headquarters to obtain a lot of infested material from some quarter, and it will be necessary for him to employ a Mexican or a negro for a day at a time, as a matter of assistance to him in gathering that material. These letters of authorization include that, and that is the reason for its inclusion here. It is sometimes necessary for our men to pay freight or express charges on supplies sent to them wharf away from headquarters.

Mr. SCOTT. I see another item here, contracts with field operators, and then follows quite a number of parties, amounting to \$4,000 or \$5,000. What are those contracts?

Mr. HUNTER. I think there are 17 in there, which all cover that large scale destruction experiment of which I spoke the other day. These are the farmers in Calhoun County who have 400 acres of cotton in a strictly isolated section. We have had all the cotton stalks destroyed in the fall in order to get information by the next spring as to the destruction of the weevil under the most favored conditions. The total amount involved in those 17 contracts is about \$1,900.

Mr. SCOTT. That was to compensate these men for the loss of whatever cotton might be destroyed by the early burning of the plants?

Mr. HUNTER. Yes. It was the result of an appraisement and agreement between our representative and a representative of the planters there.

Mr. SCOTT. And what are the other contracts you refer to?

Mr. HUNTER. The others appear on another page. Those are our regular experimental farms. We enter into a regular contract with the planter, whereby he agrees to prepare the land, plant the seed and care for it exactly in accordance with our directions. In fact, it gives us practically complete charge of as large areas of cotton lands as we want to undertake. We found that a much better policy than to go to the trouble and expense of renting the land outright. We have complete and absolute control under these contracts, whereas, if we should go to work and rent this land and hire the teams and labor necessary to work it, it would not only cost us more than under the contracts, but would place the work on an artificial basis and would not have the effect upon the people that the work has now, when done on the places of those planters, right alongside that of their regular work.

Mr. SCOTT. What do these men do in return for the amount of money you pay them?

Mr. HUNTER. They follow our explicit directions from the beginning of the preceding fall as to the destruction of the plants to similar treatment in the fall of the season covered; as to arranging the plats for our experimental purposes, cultivating them whenever we give them directions to cultivate, keeping track of the different

pickings on the plats, at the end of the season giving us full reports of the amount produced and then destroying the stalks that are left standing.

Mr. SCOTT. What you pay them for is the additional bookkeeping and accounting that they make?

Mr. HUNTER. Yes; and the information that we get from the fact that they follow our directions.

Mr. HOWARD. And for the loss of cotton, too.

The CHAIRMAN. Is not that more particularly under the Bureau of Plant Industry—that culture that you mentioned?

Mr. HUNTER. No, sir. This is clearly differentiated from the work of the Bureau of Plant Industry. This is strictly weevil work.

The CHAIRMAN. I know; but you say you give them directions in regard to the cultural methods, and so forth.

Mr. HUNTER. I was speaking of what the planters have to do under their contracts. That is aside from what we do.

Mr. SCOTT. Following up the chairman's line of thought, is it not true that you prescribe cultural conditions and cultural methods for these men? Do you not tell them how far apart to plant the cotton and how thick to put it in a row?

Mr. HUNTER. Yes.

Mr. SCOTT. Do you do it with the advice of the Plant Industry Bureau, or are those your own ideas?

Mr. HUNTER. Those are our own ideas, based upon our knowledge of the weevil.

Mr. SCOTT. Do you make a contract whereby you guarantee the planter a certain crop if he will follow your methods?

Mr. HUNTER. Yes. These general contracts are made on that basis.

Mr. SCOTT. Are you generally required to pay a balance to the planters on these contracts?

Mr. HUNTER. Usually not. For the year 1906, for instance, we had total obligations of that kind amounting to \$8,900. As a matter of fact, we had to pay only on two or three of them. The total amount was \$2,200, instead of the maximum liabilities.

We get at those contracts in this way: Wherever in a particular region we want to contract a work of any kind, we interview a number of representative planters and tell them in a general way what the nature of the work is, and receive from them proposals as to what amount of cotton guaranteed they will undertake that work for. From the standpoint of the planter, when he is undertaking work of that kind, what he desires to know is how he is going to come out with the crop. We find it most feasible in cases of that kind to arrange a contract on the basis of a certain crop guaranty to the planter. That amount is obtained by securing competitive bids from the different planters in the region where the place is located.

Mr. LEVER. What is your average yield per acre under this competitive system?

Mr. HUNTER. The extremes are 300 pounds of seed cotton per acre up to 1,000 pounds. I do not think we have ever gone beyond that. This guaranty is in pounds of seed cotton. Larger guaranties are only made in the cases of very productive river-bottom plantations. I suppose the average, Mr. Lever, would be 500 or 600 pounds of seed cotton per acre.

Mr. LEVER. That would be about 80 or 100 pounds of lint cotton?

Mr. HUNTER. Yes; much less than the average production of cotton in the United States.

The CHAIRMAN. Now, under your salary list outside of the city of Washington there is a stated corps, there, of salaries like yourself, and Hinds, and Morrill, and Bishopp. They are all annual salaries.

Mr. HUNTER. Yes.

The CHAIRMAN. Crawford is an annual?

Mr. HUNTER. Yes.

The CHAIRMAN. Goes?

Mr. HUNTER. He has left the service.

The CHAIRMAN. Hooker is annual, employed all the year?

Mr. HUNTER. Yes.

The CHAIRMAN. Pierce, \$1,400, and Yothers and Morgan are all employed by the year, are they not?

Mr. HUNTER. Yes, sir. They are all entomologists.

The CHAIRMAN. Do you work all the year round?

Mr. HUNTER. Yes.

The CHAIRMAN. What do you do now, at this season?

Mr. HUNTER. We have notes down there from our experimental stations awaiting publication which have to be put into shape.

The CHAIRMAN. Who have you in the field now at the present time?

Mr. HUNTER. Those men—W. W. Yothers, J. D. Mitchell, R. A. Cushman, and F. C. Pratt—are all in the field at this time. There are unusual winter conditions in Texas now. The weather is abnormally mild. In fact, the reports are that the season is as far advanced in Texas at this date as it is normally in the month of March. There is volunteer cotton scattered all over Texas on account of this mild weather, and the weevils are in many cases coming out from their hibernating places and feeding on this volunteer cotton. The investigations and observations of these, besides adding to our stock of knowledge, will give us some knowledge in the future as to how many will go through the winter successfully.

Mr. LEVER. You have about 35 men, and those are working in Texas now?

Mr. HUNTER. They are listed here; some temporary employees.

Mr. LEVER. What State are you from, Mr. Hunter?

Mr. HUNTER. Iowa.

Mr. LEVER. Where is Mr. Hinds from?

Mr. HUNTER. Massachusetts.

Mr. LEVER. Where is Mr. Morrill from?

Mr. HUNTER. Massachusetts.

Mr. LEVER. And Mr. Bishopp?

Mr. HUNTER. Colorado.

Mr. LEVER. Mr. Crawford?

Mr. HUNTER. Nebraska.

Mr. LEVER. Mr. Hooker?

Mr. HUNTER. Massachusetts.

Mr. LEVER. Mr. Morgan?

Mr. HUNTER. New York.

Mr. LEVER. Mr. Pierce?

Mr. HUNTER. Nebraska.

Mr. LEVER. Did you ever have any practical experience in cotton growing?

Mr. HUNTER. Only since I have been engaged in this work—since March, 1901.

The CHAIRMAN. Has the Bureau been making these investigations of the cotton boll weevil since 1901? Is that their first appropriation?

Mr. HUNTER. That is the first special appropriation. A small amount of work had been done out of the general funds of the Bureau of Entomology a few years before that.

The CHAIRMAN. Therefore the study of the life history of boll weevils has been going on under the Bureau for five years?

Mr. HUNTER. For four years, more accurately.

Mr. LEVER. Now, then, returning to my series of questions, Doctor, the larger part of your special force of men in the field in Texas have had no practical experience in this cotton growing?

Mr. HUNTER. No, sir; they are entomologists.

Mr. LEVER. Entomologists pure and simple?

Mr. HUNTER. Primarily entomologists.

Mr. LEVER. Do they, in addition to their entomological advice, give advice as to cultural methods?

Mr. HUNTER. No, sir.

Mr. SCOTT. Let us have that understood. In answer to my question a moment ago, I understood Mr. Hunter to say that the entomologists did tell the planters how far apart to make their rows and how thick to put the plants in.

Mr. HUNTER. I understood the question was directed to these contract farms.

Mr. SCOTT. It was; but Mr. Lever's question covers the contract farms also.

Mr. HUNTER. So far as the contract farms are concerned, I would answer affirmatively; but so far as the other work is concerned, I would answer negatively.

The CHAIRMAN. In other words, you have demonstration farms in which you teach the cultural methods in addition to doing entomological work?

Mr. HUNTER. These farms are really an extension of our laboratory work in the field. In these fields we study the weevil.

Mr. LEVER. If the chairman will permit me, I suggest that Doctor Hunter tell us exactly what these field agents of his do down there with reference to this work. I think that will bring it out.

Mr. HUNTER. For instance, we have our laboratory and headquarters at Dallas. There are laboratory experiments going on relating to the life history of the weevil and the remedies proposed from time to time, and that takes the time of several entomologists at the headquarters.

In addition to that, this experimental field work of ours is divided into routes. One entomologist travels from one to the other, and covers from about two to four or five of them. At each one of these places, early in the season, he determines the time when the weevils appear, and makes exact records of all weevil conditions in the fields throughout the season. We have complete reports of the weevil conditions made by these men. That takes some of the other men, and in addition to that, the time of several men is required at certain times in the year to study the migration and determine the extent of the dispersion of the weevil. Besides that, there are miscellane-

ous matters coming up from time to time. We have a number of special investigations under way. For instance, in east Texas this spring there was an astounding number of weevils found in the fields. The condition was so peculiar there that we felt warranted in studying the matter very carefully, because whatever we might find out in that region would have a definite bearing on what the weevil was going to do in other regions. That was the first opportunity we had to study the life history of the weevil under conditions approximating those that it will encounter over in the Mississippi Valley.

Mr. LEVER. Thank you. I think we understand that.

Now, then, that covers your work covering the life history of the weevil?

Mr. HUNTER. Yes, sir.

Mr. LEVER. Now, then, will you tell the committee just what you do with these contract farms that we have here?

Mr. HUNTER. Yes. We select these farms that I have described in the regions where the conditions are peculiar. There is the greatest diversity in different parts of the area infested by the weevil, as, for example, this peculiar region over in east Texas. There is another peculiar region in west Texas, in the high and dry climate. There is still another set of peculiar conditions along the coast of the South, where volunteer cotton occurs regularly. We go into these special regions where we find from general observation that there are peculiar local aspects of the weevil problem. The cotton is planted by the farmer, according to the system that we have found in other places to be of best advantage, and the accurate observations on the weevil that are carried on during the season show exactly what the weak points in the method of procedure against the weevil in that particular locality are.

Mr. LEVER. But you do not in any way go into the cultural method at all in these contract farms?

Mr. HUNTER. I think there is a misunderstanding about the term "cultural." Unfortunately, this system of mitigating the damage by the weevil has become known as the cultural system. It starts with the destruction of the stalks in the fall and is only cultural in this: That it is carried on by the farmer with the same implements and along the same lines in most cases that he would follow in cultivating cotton ordinarily, aside from the weevil. I suppose by cultural methods you refer to merely the actual cultivation of the soil, the plowing, subsoiling, seeding, and so forth?

Mr. LEVER. Yes. Now, Doctor, can you tell us just what part of this appropriation you expend in studying the life history of the weevil and what part of it you spend on these experimental farms?

Mr. HUNTER. It would be a difficult matter to do that because these contract farms are virtually a part of the life history of the weevil.

Mr. LEVER. I mean approximate it.

Mr. HUNTER. The total amount, in a rough way, could be arrived at by adding certain items in this list of contracts. I suppose that \$5,000 or \$7,000 would cover the item.

Mr. LEVER. How much, Doctor?

Mr. HUNTER. From \$5,000 to \$7,000.

Mr. LEVER. In the study of the life history?

Mr. HUNTER. No; in the contract farms—in that part of the laboratory work expended in the field.

Mr. LEVER. I presume, Doctor, that your reason for having so many of these men who are not acquainted with the practical side of cotton growing doing this work is due to the fact that it is rather hard to get entomologists in that section of the country?

Mr. HUNTER. Yes. Doctor Howard has ransacked the South for entomologists. We were forced to the procedure of getting fully trained entomologists like those produced at Cornell University and Amherst, where one of the finest entomological courses in this country exists. We started out and got entomologists primarily, and we found that not one of those men remains in the South more than a short time until he becomes almost a cotton planter. And I have no doubt that any one of these men who appear as entomologists could go out and make a success as a cotton planter.

Mr. HOWARD. Last year one of the most prominent growers in the State of Texas told me confidentially that he would rather take Mr. Hunter's advice on any case relating to cotton culture than that of any cotton planter in Texas.

Mr. LEVER. That was very complimentary to Doctor Hunter, and I am sure it is deserved.

Mr. SCOTT. I should like to inquire, Doctor, what specific fact or facts your study of the boll weevil, from the entomological standpoint during the past five years, has developed that are of practical advantage to the planter.

Mr. HUNTER. The first that stands out conspicuously is the advantage to be gained by getting rid of immense numbers of weevils in the winter.

Mr. SCOTT. When was that advantage developed? How long after you began the study of the insect?

Mr. HUNTER. It was suggested at the very beginning, but additional work since that time has shown fully exactly where these weevils go for hibernation, and consequently it places the knowledge within the reach of the farmer as to where he may reach them, by cleaning up the fields and destroying the stalks in the same way.

Another specific point that has been brought out recently is the possible use of parasites in the control of the weevil. That has only developed in a year's time. Over a year ago the appearances were that the parasite would never be of any practical utility in fighting the weevil. There has been a change in the conditions within a year, and the appearance is now, based upon the actual data, that these parasites can be disseminated and used in the destruction of the weevil.

Mr. SCOTT. Can you give us the amount of money expended in the development of that fact?

Mr. HUNTER. It is difficult to do so, because the energies of a number of men contributed to that. Men who have regular laboratory work and regular field work have at times been diverted from their work and assigned to this parasite work. We have assigned as many as possible to the work. It is impossible to give you an accurate figure as to the amount of money spent in ascertaining facts about parasites.

Mr. SCOTT. In a rough way, would you say 25 per cent would cover the cost of that phase of the work?

Mr. HUNTER. I should say it would; 25 per cent.

Mr. SCOTT. Can you give us an idea of the practical results that have been obtained by the expenditure of the other 75 per cent?

Mr. HUNTER. Oh, I misunderstood your question about the 25 per cent. What I had in mind was out of this 1907 appropriation used up to date. That does not refer, of course, to the expenditures made in other fiscal years.

Mr. SCOTT. I refer only to the expenditures of the past year.

The CHAIRMAN. Of the year ending June 30, 1906?

Mr. SCOTT. I refer only to the expenditures of the current fiscal year.

The CHAIRMAN. The current fiscal year commenced July 1, 1906.

Mr. SCOTT. And will end June 30, 1907.

The CHAIRMAN. Yes. Only six months of that fiscal year are gone.

Mr. SCOTT. Yes. I understood the doctor to say that this parasite information had practically been developed since that.

Mr. HUNTER. Yes. Then the answer is all right. Approximately 25 per cent may have been used in that. That leaves such matters as the investigation of remedies and other work which yield only negative and not positive results.

Mr. SCOTT. You find out, simply, that certain theories are not true?

Mr. HUNTER. Yes; that certain suggested remedies are not effective. Of course, from our standpoint that is negative, but from the standpoint of the farmer, who may be impelled by some rumor or advertisement to try one of these remedies, it is a very positive kind of information.

Mr. LEVER. But have not those Texas farmers been fooled in that way so long now that they do not bite so easily?

Mr. HUNTER. There is a new crop produced every year.

Mr. LEVER. A new crop of bait?

Mr. HUNTER. As the weevil gets into other regions it encounters people who have not heard of these things; and besides that, new ones with every appearance of plausibility are proposed by ingenious persons all through the season.

Mr. SCOTT. As a result, then, of your work since the 1st of last July, about the only positive advance you have made has been on the line of the parasitical study?

Mr. HUNTER. In addition to that we have mapped the area infested by the weevil, which is a matter which is of interest to the people throughout the South, and elsewhere, for that matter; and in addition to that, we have carried on this field laboratory and experimental work another season. That work is like any other kind of field work that is subjected to a variety of climatic conditions in the different seasons; it gains value as it is continued through a series of years, like any other field work.

Mr. SCOTT. Now, going back over the whole period of your investigation of the weevil, what practical results have you had from what you call your field laboratory work, in addition to having taught the farmers where the weevil hibernates and showing them the best methods of destroying large numbers of them in that way?

Mr. HUNTER. The practical result has been in what is known throughout the infested area as the cultural system of controlling the weevil. The result of all this work was to point out exactly what expedients could be resorted to and what measures could be taken by the farmers, and that mass or assemblage of knowledge concerning

expedients is now known commonly as the cultural system of controlling the weevil, or of mitigating the damage inflicted by the weevil. The system has been taken up by commercial bodies, by farmers' institutes, and by the very efficient work of Doctor Knapp, and has been demonstrated. The basis of this demonstration work is this field laboratory work, which involves careful investigation of the life history of the weevil.

Mr. SCOTT. Do you expect to carry on the laboratory work for the next season?

Mr. HUNTER. We think it could be done with advantage on account of the new regions which the weevil is entering or about to enter, where it will react and give the problem an entirely different aspect.

Mr. SCOTT. Can you give us an idea of what you mean by saying that "it will give the problem an entirely different aspect?"

Mr. HUNTER. Yes. In Texas a large portion of the success that has attended the efforts of the farmers to control the weevil is due to the fact that there is more or less of a period of dryness in the spring. When the infested squares begin to drop to the ground they are then in very many cases burned up, so to speak—the square is dried so that the weevil inside dies. That is due to local conditions in Texas. In Louisiana the rainfall, instead of averaging 25 or 30 inches, runs up to 50 or 60 inches. That rainfall is going to react on the weevil, and the result will be that the whole system will not naturally have as much efficacy there as it had in Texas, where it was assisted by the climatic conditions. Is that clear?

Mr. SCOTT. Yes; it is clear, so far as it gets. I do not know whether you can go further. If you care to venture it, I would like to ask what you hope to develop that will show as effective results in this very humid country as you have obtained in the dry country.

Mr. HUNTER. That is reaching into the uncertain future, but I will say, however, that the principal hope is in the utilization of these parasites of the weevil. In Texas the same conditions that have checked the weevil have also checked the parasites. With the removal in Louisiana of the conditions that checked the weevil and the parasite the parasites may accomplish a great deal more than they did in Texas.

Mr. SCOTT. I see that in cooperation with the Texas experiment station you have appropriated a comparatively small amount, about \$1,200 or \$1,500, while in Louisiana you have appropriated \$10,000 to cooperate with their State authorities.

Mr. HUNTER. Yes, sir. That is in pursuance of our general policy to carry on work where new conditions are arising. The weevil is about two-thirds the way across Louisiana, and until very recently there was a possibility that it might be checked at some point in that State. The conditions are new over there, and we can frequently do away with work that we have been conducting in Texas for some years and replace it by work in new regions over there, where the conditions are different.

Mr. SCOTT. Do you know how much Louisiana appropriated for this work?

Mr. HUNTER. The special session of the legislature about two or three years ago appropriated \$50,000. The last legislature, in session last summer, did not increase that appropriation, although by the

terms of the first appropriation it continues available until expended. That leaves them now about \$25,000 for the biennial period which began last September.

Mr. SCOTT. Have our experiment stations been doing any work along this entomological line?

Mr. HUNTER. This work has been on entomological lines. All the work we do in Louisiana is through the crop pest commission there, which is a part of the experiment station.

Mr. SCOTT. Has any of the work done by any of the entomologists working under the authority of either Texas or Louisiana developed anything?

Mr. HUNTER. Well, it has already added to the general sum of knowledge that we have now. For instance, the work in Louisiana has added a great deal to what we know about parasites. The prediction that I made a few moments ago as to what parasites might do in Louisiana is based upon work which comes under that category—Louisiana cooperation.

Mr. SCOTT. Do you think the interests of this investigation would suffer seriously—I am taking in now the strictly scientific side—if the work of the Federal Government were withdrawn entirely and the State entomologists left to work out their own problem?

Mr. HUNTER. I think it would suffer very decidedly. There would certainly be a hiatus of several years before the States would make any provision whatever. With their biennial legislatures and other arrangements, a considerable period must elapse before they will do anything to amount to anything.

Mr. SCOTT. Have they not continuing appropriations in those two States?

Mr. HUNTER. In Texas they have not. They have a department of entomology in the agricultural and mechanical college which has only about \$1,200 or \$1,500 for annual expenditures.

The CHAIRMAN. What are the experimental farms in those two States doing, if anything, along this line, in the way of cultural methods? I mean those of Texas and Louisiana.

Mr. HUNTER. They are doing nothing, so far as I know. In some cases they may be doing some incidental work like testing varieties of cotton.

The CHAIRMAN. That represents the expenditures for the fiscal year ending June 30, 1906 [indicating typewritten statement]?

Mr. HUNTER. Yes, sir.

Salaries, traveling expenses, and field and station expenses, appropriation for boll weevil investigations, entomology, 1906.

Name.	Salary.	Traveling expenses.	Station expenses.	Total.
OUTSIDE OF WASHINGTON.				
Hunter, W. D.	\$2,750.00	\$653.00	\$557.86	\$3,961.46
Hinds, W. E.	1,800.00	96 35	.....	1,896.35
Morrill, A. W.	1,600.00	587.45	.....	2,187.45
Bishopp, F. C.	1,400.00	298.18	94.26	1,792.44
Crawford, J. C., jr.	1,400.00	373.05	.....	1,773.05
Goes, Springer.	816.66	109.37	.....	926.03
Hooker, W. A.	1,400.00	320 45	.....	1,720.45
Morgan, A. C.	1,400.00	481.00	.....	1,881.00
Pierce, W. D.	1,400.00	117.80	.....	1,517.80
Yothers, W. W.	1,400.00	141.25	.....	1,541.25
Flynn, C. W.	400.00	436.00	.....	836.00
Garrett, J. B.	400.00	274.60	.....	674.60

Salaries, traveling expenses, and field and station expenses, appropriation for boll weevil investigations, entomology, 1906—Continued.

Name.	Salary.	Traveling expenses.	Station expenses.	Total.
OUTSIDE OF WASHINGTON—continued.				
Goll, G. P.	\$400.00	\$297.55		\$697.55
Hardy, E. S.	503.33	487.89		991.22
Howell, R. C.	700.00	121.35		821.35
McLachlan, Argyle.	1,200.00	557.51	\$282.25	2,040.76
Martin, W. O.	600.00	280.16		880.16
Mitchell, J. D.	443.33	313.05		756.38
Morgan, H. A.	100.00	144.65		244.65
Newell, Wilmon	1,000.00	495.95		1,495.95
Gilson, W. H.	500.00	262.52		762.52
Bristol, B. R.	6.67			6.07
Jones, C. R.	1,100.00	366.32		1,466.32
Doyle, C. B.	1,087.50			1,087.50
Pratt, F. C.	816.67	365.15		1,181.82
Sniborn, C. E.	1,020.00	209.90	21.60	1,251.50
Leister, A. J.	1,200.00	101.45		1,301.45
Blest, Edward.	297.50			297.50
Harris, R. B.	15.00			15.00
Ewing, W. G.	100.00			100.00
Rose, L. B.	330.00	76.50		406.50
Jordan, B. T.	600.00	100.00		700.00
Pettit, A. K.	140.00			140.00
Meade, R. M.	291.66	10.95		302.61
Billingsley, T. E.	155.00	224.45		379.45
Schwarz, E. A. (In Washington)	833.34	302.22		1,135.56

Total amount paid for salaries outside of Washington, \$28,773.82.

Total amount paid for salaries in Washington, \$833.34.

MISCELLANEOUS ITEMS.

Name.	Amount.	Name.	Amount.
Stationery:		Fuel: Hyattsville Grain and Coal Co..	
Ballantyne, R. C.	\$3.50		\$81.80
Library Bureau	25.50	Express:	
Monarch Typewriter Co.	80.00	Adams Express Co.	38.01
Swayze, W. L.	70.20	United States Express Co.	12.00
Texas Paper Co.	6.25	Total	50.91
U. S. Envelope Co.	61.19	Telegraph:	
Total	246.64	Postal Telegraph-Cable Co.	.71
Miscellaneous supplies and services,		Western Union Telegraph Co.	33.67
books, equipment, apparatus, machinery, and laboratory materials:		Total	34.38
American Entomological Co.	109.75	Telephone: Chesapeake and Potomac	
Bausch & Lomb Optical Co.	97.27	Telephone Co.	.20
Burrells Press Clipping Bureau	60.00	Rent:	
Carl, Frederick	7.00	McCann, J. F. (house for laboratory, 307 Commerce street, Victoria, Tex.)	192.00
Espey, John B.	13.90	Trust Co. of Dallas (house for laboratory, 131 Reiger avenue, Dallas, Tex.)	70.00
Franklin, W. T.	129.50	Total	262.00
Friez, Julien P.	77.31	Contracts for growing of cotton for investigations concerning cotton boll weevil:	
Gardner, B. H.	355.25	Gardner, B. H.	255.25
Goulds Manufacturing Co.	25.50	Franklin, W. T.	129.50
Johnson, Jefferson	361.05	Johnson, Jefferson	861.05
Lincoln, Fred S.	16.00	Nichols, J. F.	109.07
Lindsay Rubber Manufacturing Co.	2.30	Porter, J. W.	500.00
Lutz & Co.	6.00	Reed, S. G.	817.12
Nichols, Joseph F.	109.07	Stribling, G. F.	500.00
Meloy, J. B.	4.25	Yurri, Henry.	22.81
Porter, J. W.	500.00		
Reed, S. G.	317.12		
Remington Typewriter Co.	117.50		
Stribling, Geo. F.	500.00		
Tappan, M. A.	5.00		
Underwood Typewriter Co.	.75		
Walford, D. M.	5.00		
Whitall, Tatum Co.	27.85		
Woodward & Lothrop.	23.25		
Yurri, Henry.	177.19		
Total	3,045.81		
Furniture:			
Moses, W. B., & Sons.	10.78		
Woodward & Lothrop	8.70		
Total	19.48		

Salaries, traveling expenses, and field and station expenses, appropriation for boll weevil investigations, entomology, 1906—Continued.

RECAPITULATION.

Work in Texas against the cotton-boll weevil and the cotton-boll worm	\$46,349.23
Work in Louisiana against the cotton-boll weevil in cooperation with State	4,153.83
Investigation and importation of Guatemalan ant.	8,540.73
Balance unexpended	25,400.71
	<hr/> 84,444.00

EXPLANATION.

The unexpended balance referred to above includes a reserve of \$7,000 held for emergencies, such as the stamping out of isolated weevil colonies. Moreover, a portion of the remaining balance was set aside early in the season to cover possible obligations under contracts. Agreements aggregating possible obligations amounting to \$9,815 were entered into, but the actual payments were only \$2,449.18. These two items, covering money set aside for emergencies and to enable the Bureau to enter into advantageous contracts, and in that sense used, reduce the unexpended balance above mentioned to \$11,534.89.

The CHAIRMAN. These people on this salary list receive an annual salary? For example, W. D. Hunter, \$2,750. That is your annual salary?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. What is the station expenditures charged to there, \$557.86?

Mr. HUNTER. That is for drayage, express, telegraph and telephone charges, and such labor as was necessarily incurred.

The CHAIRMAN. There is another item in this list calling for express charges. Those other express charges are ones you had incurred for the service individually?

Mr. HUNTER. Yes.

The CHAIRMAN. Is Mr. Bishop an entomologist?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. He has \$94.26 here for expenses.

Mr. HUNTER. In his case it was largely labor necessary in the field.

The CHAIRMAN. Money that he paid out?

Mr. HUNTER. Yes. He would hire a negro or a Mexican by the day.

The CHAIRMAN. Is that list on page 1 all composed of entomologists?

Mr. HUNTER. Leister and Blesi and Harris and Ewing are clerks. One of them is employed here at Washington. Blesi is employed at my office at Dallas. Harris was a supernumerary man there for a short time. Ewing was employed there for a short time, but has now left the service.

The CHAIRMAN. Those are clerks, those three men?

Mr. HUNTER. Yes. Pettit is a janitor or laborer.

The CHAIRMAN. What was he employed at \$140 for—as laborer or janitor?

Mr. HUNTER. We pay him \$35 a month. He began some time after the beginning of the fiscal year, so that this does not represent the annual rate.

The CHAIRMAN. These small items of Bristol, Pratt, Mitchell, and so forth—were those temporary appointments, laborers, clerks, or what? Or are they all entomologists?

Mr. HUNTER. Are those on the first page?

The CHAIRMAN. Yes; those are on the first page—Mitchell,

\$443.33; Hardy, \$503.33; Flynn, \$400; Garrett, \$400; also Goll. Those last three are \$400 apiece.

Mr. HUNTER. Mitchell is an employee who began his service with us on the 1st of January or on the 1st of February.

The CHAIRMAN. I notice these men have all got quite large traveling expenses attached to their accounts.

Mr. HUNTER. They are men on the road—traveling from place to place all the time.

The CHAIRMAN. What are they? Entomologists?

Mr. HUNTER. Mr. Mitchell is an exceptional case. I am glad his name is mentioned. Aside from the fact that we have entomologists from various universities in the North, we have in Mr. Mitchell a native Texan, who is a natural-born naturalist, something like Mr. John Burroughs, and besides being a naturalist, Mr. Mitchell is a cotton planter. After considerable negotiation with him he agreed to enter our employ last year. Now he is one of the most valuable men we have. Mr. Mitchell is known at the National Museum and in scientific circles throughout the country.

The CHAIRMAN. I see Argyle McLachlan is charged with \$557.51 traveling expenses, and yourself, at the head of the Bureau, are charged with only \$653. Morrill has \$587.45, McLachlan \$557.51, and Newell \$495.95 in the year. Those are pretty good amounts for traveling. Where is that traveling done? Do they travel as much as you do?

Mr. HUNTER. I think in the case of Mr. McLachlan one or two trips from this country to Guatemala are included. That has brought up the expenses. Part of that appears in the \$283.25 of station expenses. That item of station expenses includes reimbursement to the party named of money advanced by him for other purposes than strictly traveling expenses. It includes labor and the purchase of supplies in the field and the employment of guides, and so on.

The CHAIRMAN. Over on page 3 of this statement I see an item on the investigation and importation of the Guatemalan ant, \$8,540.73. Is that in excess of that, or is it included in that?

Mr. HUNTER. It is included in that.

The CHAIRMAN. Where does Mr. A. W. Morrill travel?

Mr. HUNTER. He is my principal field assistant. Doctor Hinds is the principal laboratory assistant, and Mr. Morrill has a somewhat similar relation to field work. He is a man that travels from place to place and inspects and keeps correlated the data accumulated on the different experiment farms.

The CHAIRMAN. Just go down that list and name the actual entomologists, commencing with yourself.

Mr. HUNTER. Hinds, Morrill, Bishopp, Crawford, Goes, Hooker, Morgan, Pierce, Yothers, Flynn, Garrett, Goll, Hardy, Howell—both those two men, Goll and Hardy, have left the service.

The CHAIRMAN. How about McLachlan?

Mr. HUNTER. McLachlan, Martin, and Mitchell are entomologists. The next, Morgan, was only employed a short period.

The CHAIRMAN. Then the next is Newell. Is he an entomologist?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. What are his traveling expenses—\$495.95 for traveling expenses?

Mr. HUNTER. Yes. Mr. Newell is the State entomologist of Louisiana and the secretary of the Crop Pest Commission, the organization under the special weevil appropriation over there several years ago. He travels about in Louisiana in this cooperative work a great deal as my man Morrill travels around in—

The CHAIRMAN. Does Newell travel as he pleases, or does he wait until he gets orders from you? Does he undertake journeys without authorization from you?

Mr. HUNTER. Not at all.

The CHAIRMAN. Is that in excess of what the State gives him?

Mr. HUNTER. I believe the State gives him the same amount.

The CHAIRMAN. Does the State pay any amount of his traveling expenses, too?

Mr. HUNTER. I think so.

The CHAIRMAN. Would \$495.95 represent about half his traveling expenses?

Mr. HUNTER. I think very close to it.

The CHAIRMAN. Go on.

Mr. HUNTER. The next is Gilson—

The CHAIRMAN. Is he an entomologist?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Bristol—is he an entomologist?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. How did you get in \$6.67 for him?

Mr. HUNTER. He was employed and transferred in the course of a couple of days. The next, Jones, is an entomologist. Doyle is an employee of the Bureau of Plant Industry, and was detailed to the work. He is a special assistant to Mr. O. F. Cook, who had and has charge of that work. Pratt is an entomologist. Sanborn is an entomologist also. Leister is a clerk. Blesi is a clerk. Harris is a clerk. Ewing is a clerk. Rose and Jordan are both men like Mr. Doyle—associated with Mr. Cook in joint work between the two Bureaus. Pettit is a laborer and janitor, and Meade and Billingsley are men like Rose and Jordan—employed jointly by the two Bureaus.

The CHAIRMAN. You have 26 entomologists at work down there, according to that. The total amount paid for salaries outside of Washington is \$28,773.32, and the amount of salaries in Washington is \$1,135.56.

Now, is that all stationery on the top of page 2? I see there is no heading there.

Mr. HUNTER. Yes. The heading was omitted. That is stationery.

The CHAIRMAN. Now, miscellaneous supplies and services, books, equipment, apparatus, machinery, and laboratory materials. What did you buy from the American Entomological Company?

Mr. HUNTER. We buy glasses, vials, collecting apparatus, and cases; insect cases, such as we use for exhibition purposes at the laboratory.

Mr. SCOTT. What are you reading from?

The CHAIRMAN. That is from the expenditures of the year ending June 30, 1906. Now, what did you buy from the Bausch & Lomb Optical Company?

Mr. HUNTER. Optical and microscopic supplies, and photographic supplies.

The CHAIRMAN. The next item is Burrell's Press Clipping Bureau, \$60. What did you get?

Mr. HUNTER. We got from that institution the clippings that appear regarding the boll weevil in the newspapers of the different parts of the country, in order to keep posted as to what the newspapers are saying.

The CHAIRMAN. The next is Frederick Carl, \$7.

Mr. HUNTER. Just now that item has slipped my memory.

The CHAIRMAN. John B. Espey, \$13.90.

Mr. HUNTER. I do not believe I remember that one.

The CHAIRMAN. The next is W. T. Franklin, \$129.50.

Mr. HUNTER. That was contract for experimental farm work in Louisiana.

The CHAIRMAN. That is not on your list of experimental farms over the page, is it? Oh, yes; I see it is; W. T. Franklin, \$129.50. You mean it was paid out under that?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. The next item is Julien P. Freiz, \$77.31.

Mr. HUNTER. He is a manufacturer of meteorological apparatus in Baltimore. The \$77 was for a hydrograph, including express charges to Texas. The hydrograph is an instrument for recording automatically the amount of humidity in the atmosphere. In studying the relation between atmospheric humidity and the development of the weevil it was necessary, of course, to have some accurate measurement of the atmospheric humidity to make our results accurate.

The CHAIRMAN. The next is B. H. Gardner, \$355.25.

Mr. HUNTER. That relates to experimental farm operations at Palestine, Tex.

The CHAIRMAN. That appears over in the contracts again?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Now the next is Goulds Manufacturing Company, \$23.50.

Mr. HUNTER. That covers the purchase of a spraying apparatus, to be used in applying poisons.

The CHAIRMAN. Have you found anything in spraying?

Mr. HUNTER. All our results have been negative.

The CHAIRMAN. The theory was advanced here by somebody that at a certain time, when the cotton was just coming out of the ground, the spraying was effective; just when the leaves first appear they feed upon the outer edge of the leaf.

Mr. HUNTER. By that system a certain number of weevils can be destroyed. The trouble is that the total number destroyed at that time is so small a proportion of the total number coming from hibernation that it is of no practical value.

The CHAIRMAN. The next is Fred S. Lincoln, \$16. Do you remember that item?

Mr. HUNTER. That is an item incurred here in Washington, for just what I do not know, probably stationery or supplies.

The CHAIRMAN. Lutz & Co., \$6, and Joseph F. Nichols, \$109.07.

Mr. HUNTER. That is an experimental farm item.

The CHAIRMAN. The next is J. B. Meloy, \$4.25, and the one after that is J. W. Porter, \$500. That is experimental farm?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. The next is Remington Typewriter Company, \$117.50, and then George F. Stribling, \$500. These are experimental farm expenses?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Then below come the items of D. M. Walford and Whitall, Tatum Company.

Mr. HUNTER. That is for glassware and test tubes.

The CHAIRMAN. The next is Woodward & Lothrop, \$23.25, and after that Henry Yturri, \$177.19.

Mr. HUNTER. I can not tell just what that is. The first is a small item. The next, I think, was an experimental farm at San Antonio.

The CHAIRMAN. Here is an item for desks or furniture, \$19.48. Were the desks sent down to Texas?

Mr. HUNTER. Yes. The purchase was necessary because some of our men came in from the field, and the Bureau of Entomology, like the rest of the Departments, was very much overcrowded. It was necessary to get these tables and put them in a room down there.

The CHAIRMAN. The next is fuel; Hyattsville Grain and Coal Company, \$81.50. What is that—your proportion of the heating?

Mr. HOWARD. That is coal purchased for Cook's greenhouse.

Mr. HUNTER. Yes; in Cook's greenhouse, over here in Maryland, where he was caring for colonies of Guatemalan ants.

Mr. SCOTT. Do you say it took \$81 worth of fuel to keep the ants alive?

Mr. HUNTER. It enabled him to avoid the expense of going down to Guatemala on another trip for more ants. On account of the quarantine and one thing and another this importation of ants arrived in this country so late that it was impracticable to put them out in the South.

Mr. SCOTT. Were there no experimental grounds at the Arlington station or at the greenhouse here where they could be kept?

The CHAIRMAN. What amount of room do they require? What floor space?

Mr. GALLOWAY. This greenhouse is used by Mr. Cook for other purposes, and also for the handling of certain of his Guatemalan ants. The matter of having these ants and other things there together on the Department's grounds was considered carefully at the time, and it was decided, in view of the uncertain knowledge existing with reference to the way the boll-weevil insects were disseminated and also as to the way the boll weevils themselves might be disseminated, and the fact that we were sending out our seed constantly and having it stored in certain places, that it would be unwise to have these ants and weevils in close contact with our grounds; so he put up this isolated station in Maryland and carried on the work there.

Mr. SCOTT. So that you were using that greenhouse for other purposes than the storage of the ants?

Mr. GALLOWAY. Yes.

The CHAIRMAN. Why weren't they preserved in a warmer climate? Suppose they had been preserved in Texas or Louisiana?

Mr. HUNTER. They required careful watching and study. The life history of the ants was unknown, and it was desired to have them located where Mr. Cook could study them in connection with his other duties.

The CHAIRMAN. Were all these 26 entomologists here in Washington during the winter time?

Mr. HUNTER. No, sir. Those men employed in connection with Louisiana and Texas stations and a number of other men were all in the field. There were only five or six of them here.

The CHAIRMAN. There are some other expenses here—express, telegraph, and things which I think the committee understand. For rent, J. F. McCann, \$192, for house for laboratory, 308 Commerce street, Victoria, Tex., and Trust Company, of Dallas, for house for laboratory, 313 Reiger avenue, Dallas, Tex., \$70. What did you have two houses down there for?

Mr. HUNTER. Our headquarters were originally at Victoria, and we had this McCann house when we moved north to Dallas to get near the center of this infested territory. We turned this other house at Victoria over to Mr. Cook for a laboratory in connection with his importation of the ant. It was located down in the southern region, where the conditions were favorable. It was consequently impracticable to move that work to Dallas.

The CHAIRMAN. Now, in your contracts for what you might call your experimental farms—what do you call them technically?

Mr. HUNTER. We call them experimental field work.

The CHAIRMAN. You have seven farms under the appropriations for the year ending June 30, 1906, and the expense amounted to \$2,294.80. Then in your recapitulation you say, "Work in Texas against the cotton-boll weevil and the cotton-boll worm, \$46,349.23; work in Louisiana against the cotton-boll weevil in cooperation with the State, \$4,153.33; investigation and importation of Guatemalan ant, \$8,540.73." That has practically been a failure, has it not?

Mr. HUNTER. Yes, sir; so far as the direct use of the ant is concerned. As a matter of fact, it has been very important as opening up the way to the importation of cotton from Central America, which will undoubtedly be of very great value to this country.

The CHAIRMAN. You do not propose to do any more on that line, do you?

Mr. HUNTER. No, sir.

The CHAIRMAN. That sum of \$25,400.71, the unexpended balance, is free for other use?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. You say the balance unexpended is \$25,400.71, and the explanation is: "The unexpended balance referred to above includes a reserve of \$7,000 held for emergencies, such as the stamping out of isolated weevil colonies. Moreover, a portion of the remaining balance was set aside early in the season to cover possible obligations under contracts. Agreements aggregating possible obligations amounting to \$9,850 were entered into, but the actual payments were only \$2,449.18. These two items, covering money set aside for emergencies and to enable the Bureau to enter into advantageous contracts, and in that sense used, reduce the unexpended balance above mentioned to \$11,534.89." Now, what are those contracts that you refer to there as having been entered into?

Mr. HUNTER. Contracts like those with Gardner, Franklin, Johnson, Nichols, and others, in which the cotton exceeded the amount guaranteed, so that instead of being obliged to pay the planter, we were released of any obligation incurred. In other words, about

two-thirds of the experimental field work that we did did not cost us anything.

The CHAIRMAN. I do not quite understand this explanation as to these two items. Have you a copy of this statement before you?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. That refers to \$7,000 reserve.

Mr. HUNTER. Yes, sir.

The CHAIRMAN. And \$9,815 of possible obligations.

Mr. HUNTER. The difference between \$9,815 and the \$2,449.18—

The CHAIRMAN. Is about \$7,400, say?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. That is \$14,500. [Reading:] "These two items, covering money set aside for emergencies and to enable the Bureau to enter into advantageous contracts, and in that sense used, reduce the unexpended balance above mentioned to \$11,534.89."

Mr. HUNTER. Twenty-five thousand dollars is the amount that was actually unencumbered at the end of the fiscal year.

The CHAIRMAN. Unencumbered? Do you use that word?

Mr. HUNTER. Yes, sir.

Mr. SCOTT. How much of that was returned to the Treasury?

Mr. HUNTER. That is the amount that was returned.

The CHAIRMAN. Did you return that money?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. I thought it was available for another year.

Mr. HUNTER. No, sir; but as pointed out there, about half of that money had been used and set aside to cover possible obligations, and as the reserve which, we think, we ought to provide for in all cases. An isolated colony of weevils may appear in Georgia next year, and two or three similar colonies may appear in different parts of the South.

The CHAIRMAN. So much for that expenditure. Now, here is your expenditure for the first six months of the current fiscal year. At the headquarters at Dallas you have an estimate of \$400 for cotton seed.

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Is not that plant-industry work?

Mr. HUNTER. That is seed that is planted on these experimental farms. In some cases we furnish the seed, and in some cases we furnish the fertilizer that is used.

The CHAIRMAN. I will take up the item of fertilizers, \$3,000; you can speak of both together, please. You estimate \$3,000 for fertilizers.

Mr. HUNTER. Those two items of supplies, in many cases, we furnish to the planters who conduct this experimental field work for us. We have found that it is very unsatisfactory to depend upon the planters to obtain the special seeds that we should have planted for our experimental purposes. They are apt to get seed that is of poor pedigree; and when anything of that kind happens, of course it knocks out the results of the experimental work for one year. The same applies to fertilizers.

Mr. SCOTT. Suppose they should get seed of a poor pedigree. Would that have any bearing on the entomological problem?

Mr. HUNTER. Yes, sir. For instance, they might be supposed to get seed of a variety that would retain the squares on the plant in-

stead of letting them fall to the ground. That has an important bearing on the weevil problem.

Mr. SCOTT. I understand it has a bearing on the weevil problem, but I should think it would be on the cultural rather than on the entomological side of it.

Mr. HUNTER. The point is as to how the different conditions of the plant affect the weevils; what the weevil does under these different conditions established by the plant.

The CHAIRMAN. I want to put these tables in at the proper time. That is a statement of your expenditures, estimated and actual, for the first six months of 1907?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Rent—that is, the rent of your house in Dallas. Have you a laboratory?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. That is \$480 a year; no, that is \$240 a year, estimated to June 30, 1907. That will carry you through to the end of the year.

Mr. LEVER. How many acres have you under cultivation in these experimental farms?

Mr. HUNTER. Last year we had something like 1,800 acres. A large portion of it was not under contract; so the showing here from the contracts does not indicate the total number of acres that we had under experimental observations. We find planters here and there who are willing to undertake certain kinds of work without a contract.

Mr. LEVER. How many acres are there in your largest single experimental farm?

Mr. HUNTER. We had none last year over 75 acres.

The CHAIRMAN. You have here a little item of livery, \$240. expended to December 31, 1906, and \$240 estimated to June 30, 1907. Does that mean that you have expended it all already?

Mr. HUNTER. No, sir; that last column is additional.

The CHAIRMAN. To the first?

Mr. HUNTER. To the first; yes, sir. At Dallas we have our laboratory in the suburbs of the city.

The CHAIRMAN. Oh, it is additional to it?

Mr. HUNTER. Yes, sir. It is a regular monthly service under the competitive-bid basis. Our experimental farm is about $2\frac{1}{2}$ miles from the laboratory, in the outskirts of the city of Dallas, and this livery service is to enable our men to get back and forth from the laboratory to the field quickly.

The CHAIRMAN. These men—Hunter, Hinds, Bishopp, Crawford, Hooker, Morgan, Pierce, Pratt, Yothers, Mitchell, Cushman, Jones, and Gison—are all entomologists?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. There are 13 of them.

Mr. SCOTT. You have not named all of them.

The CHAIRMAN. All the others are clerks.

Mr. SCOTT. Following down you will find other entomologists.

Mr. HUNTER. They are under different headings—"Work in cooperation with Louisiana," etc.

Mr. SCOTT. I think there are 25 entomologists altogether.

The CHAIRMAN. Where are those 13 at work now, Mr. Hunter?

Mr. HUNTER. Hunter, Hinds, Bishopp, Crawford, and Hooker are here and the rest are in the field.

Mr. SCOTT. What are they doing in the field at this time of the year?

Mr. HUNTER. Studying the habits of the weevil and hibernation of the weevil and at the same time getting manuscripts and reports into shape. A certain amount of work of that kind that can be done in the field these men can carry on with their regular field work. There is certain other work of that kind that has to be brought here.

Mr. SCOTT. Do you think they are learning anything this winter about the habits of the weevil and the hibernation of the weevil that they did not find out the first winter they studied it?

Mr. HUNTER. Yes, sir; they have made some most interesting and important discoveries. For instance, they have found, as I learned in a report just a few days ago, at Victoria, in a single dead cotton plant, five boll weevils, alive, that would probably go through to destroy the crop the next season. Of course we have known in a general way that they are apt to go through under those conditions, but there we have a very striking example of what the farmer could have accomplished by destroying those stalks. There we have a concrete illustration.

The CHAIRMAN. In three other winters was not any such example as that ever discovered?

Mr. HUNTER. None was ever discovered; no, sir.

Mr. SCOTT. Did you not know until just now that these boll weevils sometimes went through alive?

Mr. HUNTER. Oh, yes.

Mr. SCOTT. Then what was there new about that discovery?

Mr. HUNTER. The number. The number that were going through, and the condition under which they were going through, and the opportunity that the farmer had to prevent their going through.

Mr. SCOTT. Was it not about your first advice to the farmer to destroy the old plants?

Mr. HUNTER. Yes, sir.

Mr. SCOTT. And all the other haunts of the weevil, so far as he could?

Mr. HUNTER. Yes, sir.

Mr. SCOTT. I fail to see that the mere fact that he discovered that there were five boll weevils instead of perhaps one or two in a place where you had been accustomed to finding them all the time is of very great importance.

Mr. HUNTER. The importance of it is that this procedure of fall destruction of the plants has been taken up very slowly by the planters. Every concrete illustration like the one I have mentioned of the utility of doing that is going to have an important effect in getting the farmers to carry on that process.

The CHAIRMAN. "Expenses for traveling, supplies, and labor incurred by above men, \$10,344.64."

Mr. SCOTT. Pardon me, before you go to that. I want to ask another question.

The CHAIRMAN. Just keep on the line of this systematic inquiry.

Mr. SCOTT. Yes. You have mentioned this one discovery that these men have made in the field. Have you gathered anything

from their reports that would indicate that they have done anything else thus far this winter that is of any importance or value?

Mr. HUNTER. They have assembled and gotten together into shape a lot of data that has been accumulated, that adds to the sum total of our knowledge of the weevil; and in view of the importance of that insect, we think that it is exceedingly advisable to have absolutely full information.

Mr. SCOTT. How long is it since you were in the field yourself where these men are at work?

Mr. HUNTER. I left about the middle of December.

Mr. SCOTT. Up to that time they had been putting in pretty full time?

Mr. HUNTER. Yes, sir.

Mr. SCOTT. You think they find work enough to keep them employed, do you?

Mr. HUNTER. I have no doubt about it whatever. The letters and reports that are sent to me indicate that.

The CHAIRMAN. How many men have you got down there in Texas in the field besides Morgan, Pierce, Pratt, Yothers, Mitchell, Cushman, Jones, and Gilson—eight? How many besides those men are down there that are on the pay roll to-day?

Mr. HUNTER. I will have to check this list to determine that—or shall I begin at the top?

The CHAIRMAN. I mean at the present time, you know.

Mr. HUNTER. Yes, sir. Pratt, Yothers, Mitchell, Cushman, and Gilson are in Texas. Jones is furloughed. He has gone home. He is not on the salary roll now, but will be taken back in the spring.

The CHAIRMAN. What other entomologists besides those in this list on page 1 of that exhibit, which we will call Exhibit B, are on the salary roll besides those that you have here in Washington? Hunter, Hinds, Bishopp, Crawford, and Hooker are at work here?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Now, you have 8 men on that salary list on the first page of Exhibit B, and what others have you? Mr. Scott says there are 25.

Mr. HUNTER. Over on the second page, under "Work in cooperation with Louisiana," you will find some more.

The CHAIRMAN. Newell, Buckner, Flynn, and Garrett are four more. That is 12?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. And in Texas, Sanborn is one—13?

Mr. HUNTER. Yes, sir; and on the last page there are four more.

The CHAIRMAN. How many does that make altogether—17?

Mr. HUNTER. There were two we overlooked at the bottom of page 2.

The CHAIRMAN. That is 19 entomologists that you have at work and on the salary list now?

Mr. HUNTER. I believe that is correct. [After making count.] I count 24, apparently.

Mr. SCOTT. That is what I made it—24.

The CHAIRMAN. Twenty-four entomologists, all at work at this moment, of whom five are in Washington and the balance in Texas and in Louisiana. "Expenses for traveling, supplies, and labor incurred

by above men, \$10,344.64. Estimated for another year, \$10,866.96." That would make a total for traveling expenses of \$21,000?

Mr. HUNTER. Yes, sir; traveling and incidental field expenses, like labor and small supplies.

The CHAIRMAN. What were those traveling expenses last year, under the previous bill, the year ending June 30, 1906?

Mr. HUNTER. I do not see any footing of that.

The CHAIRMAN. That is contained in those items on page 1 of Exhibit A, is it not?

Mr. HUNTER. Yes, sir; in the third column.

The CHAIRMAN. The second column of figures?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. "Expenses on trips of inspection by chief of Bureau, \$114.40." Doctor Howard, you did not get very far on \$114.40, did you?

Doctor HOWARD. I went down and went over the field with Mr. Hunter.

The CHAIRMAN. You have been down to Texas?

Doctor HOWARD. Oh, yes; I go down every year.

The CHAIRMAN. How many trips have you taken down there?

Doctor HOWARD. Altogether?

The CHAIRMAN. Yes.

Doctor HOWARD. I have taken one trip each year.

The CHAIRMAN. Can you go there and back for \$114.40?

Doctor HOWARD. I think so.

The CHAIRMAN. I do not see how you travel so cheaply. "Expenses, miscellaneous: Labor, furniture, supplies, post-office box rent, stationery, gas, electric light, drayage, express, etc., \$480." Where is that expended—here or in the South?

Mr. HUNTER. In the South; at the Dallas laboratory.

The CHAIRMAN. "Reserve fund for use in emergencies, such as the eradication of isolated colonies, \$5,000." That is all right. "Contracts covering"——

Mr. SCOTT. I would like to ask if you have ever had a case of isolated colonies?

Mr. HUNTER. Yes, sir; and they were successfully eradicated.

Mr. SCOTT. How did you manage it?

Mr. HUNTER. The cotton was uprooted and burned.

Mr. SCOTT. Where was that, as a matter of interest?

Mr. HUNTER. At Audubon Park, in the environment of New Orleans.

Mr. SCOTT. Near the city of New Orleans?

Mr. HUNTER. Yes, sir; on the outskirts of the city.

The CHAIRMAN. How extensive was that outbreak; and do you remember how much it cost, specifically?

Mr. HUNTER. There was an area of 12 or 15 acres of cotton, and my recollection is that the expense was a couple of hundred dollars.

The CHAIRMAN. Now we come to "Contracts covering field experimental work with following parties." I count up 23 names in experimental work there, as against 7 in 1906.

Mr. HUNTER. That difference is due to these 17 small contracts covering that experiment in Calhoun County. The aggregate of the 17 was \$2,900. It was practically one experiment.

The CHAIRMAN. Which ones are those (the 17 small contractors, I mean), and the names?

Mr. HUNTER. You can tell them by the Swedish derivation.

The CHAIRMAN. Skoberg, Johnsen, Svensen, Damstrom, Larsen, and those people?

Mr. HUNTER. Yes, sir; it is a Swedish colony located down there.

The CHAIRMAN. Why do you say "practically one?" Why would not 1 farm have been as good as 17 farms?

Mr. HUNTER. Because for our experimenting we wanted to destroy all the cotton in an isolated region. These people were the only people that had any cotton in that region.

Mr. SCOTT. That was the island, was it not, which you spoke of in your former hearing?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. And what was the object of that experiment; to find out what?

Mr. HUNTER. It was to perform, under the most favorable conditions, a large-scale experiment in the fall destruction of the plants, with the idea of determining whether farmers in a given region, by combining and cooperating as we had these farmers do, under contract, could totally eradicate the weevil from their neighborhood.

The CHAIRMAN. Then there would come the question whether they could eradicate them permanently or not, with the cotton boll weevil all around them, would it not?

Mr. HUNTER. Well—

The CHAIRMAN. Undoubtedly if you take away the food of the cotton boll weevil he will die.

Mr. HUNTER. But the point is, how soon?

The CHAIRMAN. But the minute you began raising cotton again would he not come in from the neighborhood?

Mr. HUNTER. The boll weevil feeds upon nothing but cotton.

The CHAIRMAN. Yes.

Mr. HUNTER. The point is to determine how long you must deprive the weevil of cotton through the winter and spring to result in its extermination.

The CHAIRMAN. Yes.

Mr. HUNTER. This experiment is located in such a way that it is exceedingly unlikely that weevils will ever get in from any other cotton regions.

The CHAIRMAN. I should say that is a valuable experiment for that little region of land; but if you determine that you have got to starve the weevil out (to sum it up in one word), and it takes one year or two years, then you would have to give up cotton over a tremendous area in order to starve him out of Texas, as an example?

Mr. HUNTER. There are a great many areas in Texas—

The CHAIRMAN. There are a number of localities that can be isolated, are there?

Mr. HUNTER. Yes, sir; localities that are more or less like this one. In making the examination during which we found this colony, we found lots of others of larger size, but this one was small enough so that we could handle it well. It did not cost very much money, and the isolation was very complete. There are a great many other cotton regions that are similarly situated.

The CHAIRMAN. What is the amount estimated for contracts covering field experimental work?

Mr. HUNTER. \$2,748.40.

The CHAIRMAN. "Expenditures in Washington: Expenses, miscellaneous: Supplies, stationery, apparatus, typewriter, etc., \$772.57." What do you require here in that line, with all this work done around there? In other words, are you not trying to maintain two headquarters unnecessarily?

Mr. HUNTER. No, sir. This item covers supplies that are on contract with dealers here in this city and elsewhere, that they obtain for us, and in many cases ship to Texas. A small share is used here in Washington, we think entirely legitimately, on account of the additional work involved in the office here because of our work done there, correspondence, and so on. This includes such items as stationery, envelopes, letter heads, etc.

The CHAIRMAN. Do I understand by that that if this money was not spent here it would have to be spent down there, if you had one headquarters?

Mr. HUNTER. Yes, sir; it is spent here because the supplies are obtained from the contract dealers here.

The CHAIRMAN. "Work in cooperation with Louisiana crop pest commission, \$10,000." You supply them, in the first place, with four entomologists, do you not—Newell, Buckner, Flynn, and Garrett?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. Are those gentlemen paid \$1,200 a year each?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. That will be \$4,800 for salaries toward the \$10,000—pretty near half of the \$10,000.

Mr. HUNTER. Yes, sir.

The CHAIRMAN. And the rest is practically all for traveling expenses, is it not?

Mr. HUNTER. Traveling and other expenses incurred by those men in the field.

The CHAIRMAN. You say "in cooperation with Louisiana." Exactly how is Louisiana cooperating with those four entomologists?

Mr. HUNTER. Mr. Newell is the entomologist of the Louisiana Experiment Station and the secretary of the commission.

The CHAIRMAN. Yes; you spoke of him before.

Mr. HUNTER. We appoint him as one of our special agents and pay him—

The CHAIRMAN. You raise his salary, then, from \$1,000 to \$1,200? Last year it was \$1,000.

Mr. HUNTER. No.

The CHAIRMAN. "Wilmon Newell." Is he not getting \$1,000 there?

Mr. HUNTER. The reason is that he was furloughed for one or two months during the winter, and that does not appear in that column. That column does not include the annual rate, but only the amount actually paid. He was furloughed for two months.

The CHAIRMAN. State just exactly how that cooperation is worked out, please.

Mr. HUNTER. Mr. Newell and I get together early in the season and go over plans for field work and all other kinds of work that we

are engaged upon. We have Mr. Newell nominate the men that he wants to assist him in that work in Louisiana. These men are then appointed by us. Each one of these men reports directly to Mr. Newell, but through Mr. Newell each one of them submits to me a detailed statement, weekly, of where he has been and what he has done. He includes his operations on every day.

When we desire to undertake any special investigation in Louisiana, I communicate with these men through Mr. Newell. In case it is necessary to collect a lot of parasites, parasitic material, or something of that kind over there, I communicate with Mr. Newell, and he has these men do the work, simply to have the matter centralized in the station officer over there.

The CHAIRMAN. Are they sending any men over the State themselves?

Mr. HUNTER. Yes, sir; they have two or three men, and are trying to get some more.

The CHAIRMAN. Do you know what those men are doing, exactly? Are they working just along the same lines that your entomologists are working?

Mr. HUNTER. The crop pest commission there has a lot of work aside from the weevil work.

The CHAIRMAN. Yes.

Mr. HUNTER. It is doing tick work, and doing inspection work of nurseries and orchards, and has some minor investigations on horse-flies as transmitters of disease, and so on. Those other men are engaged on that kind of work. The weevil work that is being done over there is by these men listed here [indicating].

Mr. SCOTT. The cooperation with these State officials therefore consists, in fact, in your putting them on the Federal pay roll and directing them to some extent as to what they shall do?

Mr. HUNTER. Yes, sir; directing them rather explicitly. We found this system to work out in most complete harmony. Mr. Newell and I have never had any disagreement about plans to be followed, and on the whole we considered it a very satisfactory arrangement.

Mr. SCOTT. How much of his time does he give to your work, and how much to the work of the State?

Mr. HUNTER. He gives our work half of his time. Under the agreement with us, he is to give us half of his time; but I think, as a matter of fact, that he gives us two-thirds or three-quarters of it oftener than one-half.

Mr. SCOTT. Does the work that he does in the time that is not paid for by you contribute anything of value to your work?

Mr. HUNTER. Not directly. It is entomological work of a different kind.

Mr. SCOTT. The expense of the cooperation, then, is wholly borne by the Federal appropriation, as I understand?

Mr. HUNTER. Yes, sir.

Mr. SCOTT. And it is really misnamed, is it not, when you call it "cooperative work?" Would it not be just as proper to call the work that any of these entomologists do under your direction, although they may be paid entirely by your appropriation, "co-operative work?"

Mr. HUNTER. In one sense. In the case of these Louisiana co-operators, we pay certain salaries and traveling expenses. We get from them their reports. They are joint officers of the Government and of the State of Louisiana.

Mr. SCOTT. Yes; but if they are not engaged along the same line of work that you are, their reports of the work they are doing for the State do not do you any good?

Mr. HUNTER. No, sir.

Mr. SCOTT. The general idea that comes to one's mind when you use the word "cooperation," with reference to work done between two parties, is that they are both engaged in the same line of work, one employed by one authority and the other employed by another authority.

Mr. HUNTER. Yes, sir.

Mr. SCOTT. So that each of these two parties contributes in an agreed ratio to the same end.

Mr. HUNTER. Yes, sir.

Mr. SCOTT. But from what you say, it seems to me pretty clear that the word "cooperation" ought not to be used in this connection.

Mr. HUNTER. Well, it seems to me that we have these men working along the same lines as our men—that is, they are working toward the same end.

Mr. SCOTT. They are working toward the end when we pay them for doing it, but when we do not pay them they are working toward a different end. Is not that true?

Mr. HUNTER. Yes; that is true.

Mr. SCOTT. It is not important at all; I merely want to get it clear.

The CHAIRMAN. Well, it is a little important, as showing the tendency to put everything off onto poor Uncle Sam—the whole thing. They do not want to save themselves; they want Uncle Sam to save them. That is the trouble with the whole situation.

Mr. SCOTT. I simply want to develop that as a matter of fact it is not cooperation at all. We are simply employing these people and getting nothing in return for it.

The CHAIRMAN. "Allotment for joint investigations between the Bureau of Entomology and the Bureau of Plant Industry, \$10,000." I see there is also an item as to cooperation with Texas. I suppose what you have said in regard to cooperation with Louisiana covers that?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. You only have the salary of one entomologist there, C. E. Sanborn. By the way, who is he?

Mr. HUNTER. He is an entomologist who originated in Kansas.

The CHAIRMAN. I mean, is he an employee of the Texas Experiment Station?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. And this is in addition to his salary from the State?

Mr. HUNTER. Yes, sir; in addition to what he is paid by the experiment station.

The CHAIRMAN. In other words, you have to give them a prod to do a little work. They ought to be willing to pay him what he is worth, and then they ought to be willing to take the advice of the

central department or not, one or the other. They either ought to act on it or not, but they ought to pay. That is my point on this whole thing. It is one form of centralization.

"Allotment for joint investigations between the Bureau of Entomology and the Bureau of Plant Industry, \$10,000. The Bureau of Entomology has allotted \$10,000 and the Bureau of Plant Industry \$12,000 for a joint investigation relating to problems more or less in the domain of both Bureaus. It includes a study of the efficiency of the weevil, resistance and adaptability of the cotton plant, local bionomic factors, and bionomic explorations of Central American cotton culture."

Mr. HUNTER. Interrelations between the cotton plant and the weevil.

The CHAIRMAN. Just tell us what that joint work between the bureaus is.

Mr. HUNTER. The boll weevil and the cotton plant have been pretty intimately associated for centuries. Whole sets of interrelations have sprung up between the weevil and the plant. The plant has acquired certain tendencies that have the effect of thwarting the weevil. For instance, under some conditions a gummy substance is formed in the fruit that grows so rapidly that it destroys the weevil inside. Another tendency on the part of the plant that checks the weevil is the hanging of the bolls and squares. Instead of sticking up, so that the weevil has ready entrance, they hang down, so that the weevil has to crawl down, which is rather distasteful to him. Those two things illustrate the class of protective adaptations on the part of the cotton plant. They must be studied in connection with the weevil. If they were studied absolutely from the plant side the results would be apt to be misleading. If they were studied from the weevil side the results might be equally misleading. They are matters which must be approached at the same time from both the weevil and the plant side.

Mr. O. F. Cook is the man who has charge of this work. He has made many interesting discoveries in Guatemala about the resisting qualities of the cotton plant. The point is, in this country, to reproduce those weevil-resisting adaptations, and, if possible, accentuate them. It is work that, as I say, concerns both the insect and the plant, the interrelationships between them; and Doctor Howard and Doctor Galloway have considered that the best way to approach that subject was to make these two allotments from the different bureau appropriations. This concerns the \$10,000 allotment by the Bureau of Entomology.

The CHAIRMAN. In connection with that work you have McLachlan, Doyle, Goll, Jordan, Rose, and Meade. They are all either entomologists or plant-industry men?

Mr. HUNTER. Well, they are both. They are primarily botanists, plant-industry men, but also men who either know originally or have picked up a great deal about entomology. The work that they have been engaged in practically makes entomologists of them.

The CHAIRMAN. The next item is "Expenses: Letters of authorization covering traveling and other expenses for above men." What do you mean by "letters of authorization?"

Mr. HUNTER. Before any employee of the Department can incur any expenditures whatever that he has any hope of being reimbursed

for, he must have a specific letter of authority authorizing him to incur them and specifying exactly what he may incur. A man can not travel anywhere without a letter of authority.

The CHAIRMAN. That item is for the men under the cooperative work only?

Mr. HUNTER. Yes, sir; those six men.

The CHAIRMAN. What is that rent of \$96?

Mr. HUNTER. That is for the establishment at Victoria, located down there in the most favorable region in Texas, for testing these imported cottons from Central America. That is where they are brought into contact with the weevil conditions of this country.

The CHAIRMAN. Your recapitulation shows that your appropriation is \$85,000; expended to December 31, 1906, \$33,347.57; estimated to June 30, 1907, \$48,639.03; which shows an unexpended balance of \$3,013.40. That, added to the \$5,000 which you have reserved for isolated outbreaks, would make a total reserve of \$8,000, would it not?

Mr. HUNTER. Yes, sir.

The CHAIRMAN. That is all I wish to ask.

Mr. LEVER. Doctor, let me ask you just a few questions. You have about from 20 to 25 entomologists doing this work?

Mr. HUNTER. Yes, sir.

Mr. LEVER. And you are studying the life history of this insect?

Mr. HUNTER. Yes, sir.

Mr. LEVER. As a matter of fact, have you not about completed the study of the life history of the insect? Do you not know about all about him that you can learn?

Mr. HUNTER. No; for the simple reason that the insect's habits are changing. We know a great deal about what the habits of the insect are at present.

Mr. LEVER. You know his habits in the State of Texas, we will say, pretty well?

Mr. HUNTER. Yes, sir.

Mr. LEVER. And in Louisiana, too?

Mr. HUNTER. The weevil has only been in Louisiana for two years, and throughout the majority, the greater portion, of that State it has not been there long enough to get in touch with the local conditions. There is a great deal about its habits in Louisiana that we do not know.

Mr. LEVER. Then your study of the life history of the insect will be confined largely hereafter to Louisiana and to—

Mr. HUNTER. To the new regions.

Mr. LEVER. Do you not think it would be possible to continue this study with about half a dozen entomologists, or something like that?

Mr. HUNTER. We could do something with a smaller number of entomologists. The view that we take of the situation in the Department is that although the weevil problem has been a serious one in Texas, it is going to be a much more serious one elsewhere, and that in view of that fact it would be undesirable to cut down the force engaged.

Mr. LEVER. You just want to move your line up with the weevil?

Mr. HUNTER. Yes, sir.

Mr. LEVER. Now, another question: You have discovered a parasite, I understand?

Mr. HUNTER. Yes, sir; numbers of them.

Mr. LEVER. Do you have any hope of success through this parasite?

Mr. HUNTER. Very decided hope of success.

Mr. LEVER. You do? Well, now, Doctor, in your judgment, do you not think that about the only possible way by which we can control the boll-weevil situation is through cultural methods—to grow this cotton in spite of the boll weevil? Do you not believe that is the only remedy, really, in the end?

Mr. HUNTER. No, sir; I can not say that I do. I think that very valuable results always will be obtained from mere cultural expedients; but, at the same time, the parasites may add enormously to what the farmer brings about by his cultural means. It is altogether likely that we may be able to perfect means of breeding these parasites and of distributing them that will assist very decidedly.

Mr. LEVER. Is your greatest hope along the line of these parasites?

Mr. HUNTER. Yes, sir.

Mr. LEVER. Could not half a dozen entomologists ferret out this parasite problem as well as 26?

Mr. HUNTER. It is a problem that must be considered in many ways. For instance, in starting the work under parasites it was necessary for us to make a general examination of the infested territory to find what parasites were in existence and exactly what they were doing. That took a number of men and an immense amount of hard work. Besides that, the conditions in older regions where the weevil has existed must be looked into. There may be parasites down there that are just now transferring their attention to the weevil, exactly as happens to be the case in Texas. Some one of those may turn out to be more advantageous to bring to this country and distribute than anything indigenous here.

Mr. LEVER. Are you making investigations outside of this country with a view of getting parasites?

Mr. HUNTER. Yes, sir.

Mr. SCOTT. You stated, I believe, that you obtained from these field experiments which you conducted during the past year a considerably less quantity of cotton than the average yield throughout the country?

Mr. HUNTER. No, sir; I think I did not make my meaning clear. The average guaranty made under all these contracts was considerably less than the average production per acre in the United States.

Mr. SCOTT. And yet in some cases you did not come up to that guaranty?

Mr. HUNTER. Yes, sir; in very few cases.

Mr. SCOTT. How do you account for that?

Mr. HUNTER. It is all due to the fact that in experimental work of that kind we must have our checks. The only way to interpret the results of field work is to have checks. For instance, we have a certain plot or plots of ground planted early in this experimental work, and in order to determine exactly what result earliness brings about we have to have plots planted late. Those cases where we have been compelled to pay obligations under our contract are ones analogous to that, where, for instance, there has been a great deal of late cotton

grown under contract to enable us to interpret the results of our work.

Mr. SCOTT. I asked that question because it occurred to me that if the fields that were growing under your direction produced a less quantity of cotton than the farmers were able to raise with their usual methods it would have a tendency to discredit the Government work.

Mr. HUNTER. Yes.

Mr. SCOTT. And in that way the results that you hope to obtain would be lost.

Mr. HUNTER. Yes. I have made it clear, have I not, that the fact is that these places have averaged much more than the average production in the United States?

Mr. SCOTT. No; you did not make that clear; at least it was not clear to me. I gathered from what you said when this matter was brought to your attention, some time since, that the average production of your experimental fields was much less than the average.

Mr. HUNTER. No, sir; I misstated myself if I gave that impression. It is the amount guaranteed to these farmers that averages less than the average production in the United States. When the production goes over that amount of course the farmer gets the benefit of it.

Mr. SCOTT. Yes.

Mr. LEVER. The average yield of cotton per acre in this country is about 187 pounds of lint, is it not?

Mr. HUNTER. The average estimate is a bale to 2.3 acres, which would figure out just about that.

Mr. LEVER. About 187 pounds of lint, I think.

Mr. HUNTER. Yes.

Mr. LEVER. And your average is above that on all your experiments?

Mr. HUNTER. Very considerably above it.

The CHAIRMAN. I have had these items footed. The traveling expenses for the year ending June 30, 1906, according to Estimate A, amount to \$8,264.15.

Doctor HOWARD. Mr. Chairman, Mr. Scott's questions to Mr. Hunter a little while ago suggested to me that it would be well to make this statement: We have not made any great discovery which is striking in its effect in regard to remedies for the boll weevil; but the very fact that this cultural method has been developed, and the very fact that the farmers are able to grow cotton in spite of the weevil, is due entirely to the investigations of the Bureau of Entomology. It is all based upon that fact, Mr. Scott.

Mr. SCOTT. I think I understand that, Doctor Howard.

The CHAIRMAN. Entirely due to the Bureau of Entomology?

Doctor HOWARD. Entirely so, sir.

The CHAIRMAN. And not to the Bureau of Plant Industry and Cultural Methods?

Doctor HOWARD. The Bureau of Plant Industry, in its demonstration work, is simply applying the knowledge we have gained and demonstrating what we had already proven; that is all. That does not seem to be thoroughly understood; neither does the difference between the demonstration farms and the experimental farms seem to be thoroughly understood. The experimental farm is simply doing

laboratory work out of doors on a large scale. We find out the facts about the life history of the insect and we make a theoretically practical suggestion from that. But it is not worth much until we have tested it outside. We have to have these large-scale field experiments in order to test our more or less theoretical ideas.

Mr. SCOTT. I think we understand that.

Doctor HOWARD. Yes, sir.

Mr. SCOTT. The purpose or the thought in my mind that prompted my questions was this, Doctor: The men who have had charge of the cultural methods have reported to us that by the production of seed which produces a plant that matures rapidly, by preparing the ground properly in advance, by putting the rows a proper distance apart, by the use of fertilizer, and by proper methods of cultivation, they have succeeded in growing better crops of cotton in spite of the weevil than were grown before the weevil made its appearance.

Doctor HOWARD. Yes.

Mr. SCOTT. Now, along with that information there came to us also the conclusion, expressed, I think, by Doctor Hunter, that we would always have the boll weevil with us; that we might as well settle down to that fact, and get ready to get along with him as we get along with the chinch bug and a thousand other pests. Putting those two facts together, the thought I had was that the work of your Bureau, which we all know has been of great value in pointing the way to these cultural methods, has really accomplished about all that it can accomplish. That was the thought behind the questions that I was asking.

Doctor HOWARD. That is a very natural thought, Mr. Scott. At the same time, as Mr. Hunter has pointed out, the insect is changing its habits, even in Texas.

Mr. SCOTT. Let me ask you a question there: We have been accustomed to regard evolution as an age-long process. Does the cotton-boll weevil change over night its habits of life?

Doctor HOWARD. No.

Mr. SCOTT. Does it evolve into something entirely different in the course of a season?

Doctor HOWARD. No; not at all.

Mr. SCOTT. Then, if you are going to undertake to study the changes that are brought about by a shifting from one climate and environment into another, would you not better postpone it until those changes have had time to work themselves out in the insect?

Doctor HOWARD. That is a very ingenious point; but I think we had better keep at it.

Mr. SCOTT. I do not mean it to be ingenious; I am asking it in perfect good faith.

Doctor HOWARD. I know; but I think it better to watch it with extreme care from year to year, Mr. Scott—altogether best, from the practical point of view.

Mr. SCOTT. I notice in our estimates here that you put the total salary cost per annum expended out of this appropriation of \$82,500 for the extermination of the gypsy moth at \$8,700. What is done with the remainder of the \$82,500?

Doctor HOWARD. We have only spent \$45,000 of the \$82,500 so far.

Mr. SCOTT. How much do you think you will spend between now and the 30th of June?

Doctor HOWARD. We expect to spend every single cent of it; and we really hope that you will make some of this next appropriation immediately available, if you give it to us at all.

Mr. SCOTT. And outside of salaries how do you expect to use it?

Doctor HOWARD. The main expenditure is in labor. We have spent, for example, up to the present time, as I find from my books, something like \$33,000 for labor.

Mr. SCOTT. How do you use that labor?

Doctor HOWARD. It consists of laboring men who are hired at a rate of \$2 a day for the ordinary men and \$2.50 for foremen, and they have been doing actual extermination work against the gypsy moth since the 1st of July. When I appeared before the committee last year I was somewhat hazy in my mind as to what we could best do in the way of preventing the spread of the moth; but after the appropriation was made I went to Massachusetts and talked with the superintendent having charge of suppressing the moth under the State, and with his head men, and I decided that this was the best scheme to follow, and this is the plan that we have followed up to the present time—to keep scouting parties (that is, parties looking for the advent of the moth) on the outskirts, but to devote our main work toward actually cleaning up the main traveled roads leading from the most thickly infested centers.

The CHAIRMAN. So as to prevent the carrying on of the infection?

Doctor HOWARD. To prevent its being carried out on automobiles, carriages, etc.

Mr. SCOTT. At what time can this work be most effectively done?

Doctor HOWARD. That work can be done all the year round. The work upon the caterpillars themselves, by spraying and banding, etc., can only be done during two months, say, during May and June; but the rest of the year the men can be employed, even in the winter time, with the detection of the egg masses and placing creosote upon them in the outskirts. They can be working and cleaning up the trees, so that next year the caterpillars will have no chance to fall down on the shoulders of people passing and on trolley cars and other vehicles. The result is that the Massachusetts State road and the Newburyport turnpike have been cleaned up in that way by forces of men engaged in cleaning out underbrush and in clearing up the main trees, not only the actual roadside trees, the shade trees, but also for a hundred feet back into the infested woodlands. That means that along those roads there will be absolutely no opportunity for caterpillars to fall down upon passing vehicles or passing persons and thus be carried out.

Mr. SCOTT. Are the State authorities of Massachusetts using some of their funds for this same kind of work?

Doctor HOWARD. Not for exactly the same kind of work. They are cleaning up, or helping to clean up, infested woodlands only owned by the State—park lands, and forests of that kind. They are also spending the majority of their money in assisting the towns and individuals in cleaning up shade trees and trees in orchards and on private property. They have an interesting law, you know, which says that a certain town shall spend, under the direction of the superintendent, a certain amount of money, and they can be reimbursed on a certain percentage of the taxable value of the property from the

State appropriation. It is estimated that the State of Massachusetts has spent this year over \$700,000—just that one State.

The CHAIRMAN. By direct and indirect appropriations, you mean?

Doctor HOWARD. By direct and indirect appropriations; yes.

Mr. LEVER. Doctor, you estimate for \$200,000 for this work for the next year?

Doctor HOWARD. Only \$150,000. The Secretary sent a supplemental estimate, I believe, making it \$150,000.

Mr. LEVER. Do you think you can spend that amount economically and advantageously?

Doctor HOWARD. To excellent advantage, I think.

Mr. LEVER. To excellent advantage?

Doctor HOWARD. People who have been engaged in gypsy-moth work with me—I was in Massachusetts at the time you called me before the committee last week—people in Massachusetts who have been familiar with it from its inception say that they have never seen such a perfect and admirable piece of work as has been done by our men during this last summer and fall.

The CHAIRMAN. Who were these men?

Doctor HOWARD. The man I chose for the man in charge was the assistant superintendent of the State.

The CHAIRMAN. A Massachusetts man?

Doctor HOWARD. Yes; I took the advice of Mr. Kirkland.

The CHAIRMAN. They could have done it if they had only wanted to do it?

Doctor HOWARD. Yes; I think so. I took him as director. He has picked his own men. He is accustomed to handling laboring men, and he has been working in a very excellent way. The other branch of the work which is going on is the parasite work, which includes the parasites we are importing from Europe, you know; and that seems to be bringing good results. We liberated last year 65,000 specimens of European parasites in woodlands around Massachusetts, and we found out that four species went through two generations, and they are probably hibernating successfully at the present time.

Mr. HENRY. Right there, Doctor. Are you getting hopeful results from the parasites?

Doctor HOWARD. Yes, sir.

Mr. HENRY. Is the area extending where the gypsy moth is found? I do not mean the outlying outcroppings, but the immediate area?

Doctor HOWARD. The immediate area of the moth is being decidedly reduced in the interior part by the work of our men.

Mr. HENRY. You are reducing the number yearly?

Doctor HOWARD. Yes, sir; very greatly. For example, we have had a force of men working in the city of Providence.

Mr. HENRY. Are you doing all the work in Rhode Island?

Doctor HOWARD. Not all of it; no, sir. The State spent some \$20,000 last year, and expended all the money she had. Then she turned over her force of men to us, and we have been carrying the work on this winter. They are asking for \$25,000 from the legislature now for the State of Rhode Island.

Mr. HENRY. Yes. Our State is making appropriations this year for that kind of work, under Professor Britton. Have there been appropriations in New Hampshire and Maine for the gypsy moth?

Doctor HOWARD. Yes; the lower tier of counties in New Hampshire is infested. We have located about seventeen colonies in the lower counties of New Hampshire.

Mr. HENRY. What is New Hampshire doing?

Doctor HOWARD. New Hampshire has a bill before her legislature at the present time, which is based upon the Massachusetts State law, requiring towns to take up the work, with certain reimbursement from the State. The State of Maine has a similar bill before her legislature this year, and our scouting parties have discovered the eggs in Maine for the first time within the last four weeks—it had not been known in Maine before—five or six colonies in south-east Maine.

The CHAIRMAN. How extensive are those colonies?

Doctor HOWARD. Very small; only a few egg masses.

The CHAIRMAN. Is the State doing anything?

Doctor HOWARD. The State has a bill in the legislature now, and the State is very much interested. I went up in September and addressed public meetings in Portland and Bangor and Augusta, and there was the greatest interest, and everybody seemed inclined to think that the State ought to make an appropriation this year; and I have no doubt that she will.

The CHAIRMAN. They are small colonies so far?

Doctor HOWARD. They are small colonies; yes.

Mr. HENRY. Doctor, you have said nothing about the brown-tail moth. What have you to say in regard to that?

Doctor HOWARD. We can not stop the spread of the brown-tail moth.

Mr. HENRY. You can not?

Doctor HOWARD. No, sir; we can not stop it.

Mr. HENRY. But has there been anything done in the way of discovering parasites for the brown-tail moth?

Doctor HOWARD. Yes; these parasites that we have brought over from Europe are parasites of both the brown-tail moth and the gypsy moth.

Mr. HENRY. The same parasite attacks both?

Doctor HOWARD. They are particularly valuable—the same species. The brown-tail moth is spreading rapidly by flight as well as by the carriage of the caterpillars, and it already includes a region from away up on the Maine coast clear to Amherst, Mass.

Mr. HENRY. You of course have no hope of exterminating the brown-tail moth entirely?

Doctor HOWARD. No, sir.

Mr. HENRY. Now about the gypsy moth. Do you think it is practicable to entirely exterminate the gypsy moth?

Doctor HOWARD. I fear that it will not be exterminated. All that we can do, I think, is to hold it in check and prevent the further spread of the gypsy moth until the parasites shall have brought about the condition of stable equilibrium which exists in Europe.

The CHAIRMAN. Even then the moth will spread a little if you leave him alone?

Doctor HOWARD. Then he will spread a little; unquestionably, yes.

Mr. HENRY. But the parasite will spread with him?

Doctor HOWARD. But the parasite will spread with him, and he will no longer be a first-class pest.

The CHAIRMAN. As I understand it, the gypsy moth is pretty much all over Europe; is he?

Doctor HOWARD. All over Europe, and all over Asia.

The CHAIRMAN. All over Asia?

Doctor HOWARD. Yes; especially in Japan.

The CHAIRMAN. And is the parasite all over Asia and all over Europe, too?

Doctor HOWARD. There are different parasites for different parts of the country.

The CHAIRMAN. But there is a parasite in all parts of the world?

Doctor HOWARD. Yes; there are 52 distinct species of parasites of the gypsy moth known in Europe.

Mr. HENRY. And it has found a congenial home in Massachusetts.

Mr. LEVER. Doctor, have you mapped out your work in this connection for next year; or have you any plans?

Doctor HOWARD. Yes; to carry on the same—

Mr. LEVER. The failure of Congress to give you an appropriation of \$150,000 would seriously interfere with your plans and handicap you very much in this country?

Doctor HOWARD. No; we could go on in exactly the same way that we have done this year, with the small appropriation, if you give us as much as you gave us this year; but we could do more and better work if you gave us \$150,000.

Mr. LEVER. You could do more and better work?

Doctor HOWARD. We could do more and better work if you could give us \$150,000. It would make a very decided difference in the efficiency of the work if we had more money. We could employ more men and cover more territory, you see.

Mr. LEVER. This is work in which you need a lot of men and in which a lot of men can work?

Doctor HOWARD. Yes; that is it. We have 118 men on the pay roll now—118 laborers.

The CHAIRMAN. What are they doing at the present moment?

Doctor HOWARD. They are cleaning up roads, and there are 20 of them engaged in scouting.

The CHAIRMAN. Can you carry on that work with snow on the ground?

Doctor HOWARD. Yes; you can do it with snow on the ground. They find the egg masses; they know exactly where to look for them. They have trained men who have been engaged in the State work as foremen of gangs. A man very soon picks up a knowledge of the life history of the insect and is able to recognize the egg mass when he sees it—it is rather a conspicuous object—and they are scouting through the old orchards and along the roads in southern New Hampshire and in the vicinity of Providence, R. I., and in southeastern Maine, as well as along the borders of the Massachusetts line, which is now about Worcester, for the gypsy moth.

Mr. HENRY. Has it reached Worcester?

Doctor HOWARD. Yes; it has reached Worcester. It now covers an area of over 2,200 square miles in the State of Massachusetts.

Mr. HENRY. Then it has spread recently?

Doctor HOWARD. Within the last five years. When they stopped the State work in 1900 it covered only about 400 square miles. In

the interval, when there was no work, it spread until it covers 2,200 square miles.

Mr. HENRY. A larger area.

The CHAIRMAN. What do you hope to accomplish with an additional appropriation?

Doctor HOWARD. Simply to cover more territory and clean up these roads more rapidly.

The CHAIRMAN. You say you have no hope of exterminating it?

Doctor HOWARD. Very slight.

The CHAIRMAN. Then all you can do, practically, is to hold it in check until your parasite grows?

Doctor HOWARD. Yes.

The CHAIRMAN. And is a counterbalance?

Doctor HOWARD. Yes. We can hold it in check very much more effectively the more money we have, of course.

The CHAIRMAN. You are practically holding it in check now, are you not?

Doctor HOWARD. I do not know, I am sure. I can not tell you. It may be spreading. If so, we do not know it.

The CHAIRMAN. I think Mr. Henry said they exterminated the colony in Connecticut the other day, did they not, Mr. Henry?

Mr. HENRY. Why, they think they have at North Stonington. They are not entirely through. They are watching. They have to watch it.

The CHAIRMAN. That was probably carried by the automobiles.

Mr. HENRY. Yes; but it is an isolated locality, you know.

The CHAIRMAN. It is off of the automobile roads?

Mr. HENRY. Yes. You would hardly expect to have an outcrop there. It is one of the last places where you would expect it. It is off the line of travel.

Doctor HOWARD. Have you heard that the peace conference at Portsmouth was responsible for the introduction of the insect up there? That is an interesting point. So many people went in automobiles up into that region that they carried hundreds of those caterpillars up on their machines, and they dropped off along the road. Wherever they stopped the caterpillars would drop off, you see.

The CHAIRMAN. What about this rootworm in grapes in western Pennsylvania, Doctor? Mr. Bates, a Member of Congress, came to see us the other day, and said he went down to see you people, and that you said you could not do a thing without an additional appropriation; that your plans were all laid, and that you could not change them without an additional appropriation. That struck the committee as rather extraordinary—that you had no elasticity to your plans to enable you to meet an emergency or to meet a case like this. What about it?

Doctor HOWARD. There is, of course, a certain amount of elasticity, and we could meet a certain emergency, but, you see, it is very difficult.

The CHAIRMAN. You have a man named Johnson up there now, who is doing work for the apples and pears and peaches.

Doctor HOWARD. Yes.

The CHAIRMAN. Why could not that man examine into this question?

Doctor HOWARD. He could devote some attention to it; there is no doubt about that. If the committee will give us the general increase that we want we can handle that question, I think, and we can also handle some other questions that Members of Congress may be bothered about. For example, the insects injurious to the deciduous fruits in California—several Congressmen have been to see me about that and other similar matters.

The CHAIRMAN. Now, there is another case. What in the world is the experiment station of a great big rich State like Pennsylvania doing? What are the entomologists of the State doing?

Doctor HOWARD. They have no entomologist in the Pennsylvania State Station. They have a State zoologist, who is supposed to handle these questions; but he has no assistants and small funds. The State experiment station does nothing in entomology.

The CHAIRMAN. Do you mean that a great rich State like Pennsylvania has not any entomologist connected with her agricultural experiment station?

Doctor HOWARD. No, sir.

The CHAIRMAN. And California, with all her rich fruit interests—she must have not only an entomologist, but entomologists, connected with her experiment station?

Doctor HOWARD. She has an entomologist connected with her experiment station; but the practical men seem to have little confidence in him.

The CHAIRMAN. Well, that is ridiculous.

Doctor HOWARD. You will remember that the Secretary asked for \$45,000 increase of the lump fund for the Bureau.

The CHAIRMAN. Yes.

Doctor HOWARD. And if you should be inclined to give us that amount I think we can handle this case in northeast Pennsylvania and also these other cases that are bothering you.

The CHAIRMAN. As I have said so often it seems to me as if the various States are all coming here to the Agricultural Department and trying to get it to do this work on the plea that they have no confidence in the scientists of the experiment stations; if not for that reason, for some others.

Doctor HOWARD. The Department is in a bad case, because the minute we enter a State the experiment station always is inclined to feel that it ought to be consulted first, you know, before the Department of Agriculture enters any State at all to carry on an investigation. You have had hearings before your committee which show the feeling of the stations.

The CHAIRMAN. We granted the stations \$5,000 additional each last year, which will reach \$15,000 in another year or two, making it \$30,000. Now, there is a bill before us appropriating \$10,000 for the agricultural colleges. It looks to me as if an attempt was being made to saddle the whole expense on Uncle Sam.

Doctor HOWARD. Some of the States are doing very well.

The CHAIRMAN. Oh, yes; some of them; but there is the State of California. Her greatest interest, you might almost say, is in her fruit industry.

Doctor HOWARD. Yes.

The CHAIRMAN. And I imagine, from what I can get from the data of the Agricultural Department here, that the Agricultural Depart-

ment is doing more work in the State of California than in any other State of the Union.

Doctor HOWARD. They are doing a great deal.

Mr. LEVER. Doctor Galloway, suppose we increase your appropriation \$50,000, can you use that money advantageously in the widening of your demonstration farm work?

Doctor GALLOWAY. We could use thirty-five to fifty thousand dollars advantageously in connection with this general propaganda work that Doctor Knapp has outlined, and that would be our plan in the case of the boll weevil, for the reason that he has as early as last September laid out a scheme to branch out into counties in Mississippi and surround the whole thing with a sort of cordon, which requires about a thousand dollars for each county. With the \$39,000 that we have this year we can go just so far, and if it was increased \$35,000 we could go just so much further.

(The committee thereupon took a recess until 2.30 o'clock p. m.)

AFTER RECESS.

STATEMENT OF OVERTON W. PRICE, ESQ., ASSOCIATE FORESTER IN CHARGE OF FOREST MEASUREMENTS, BUREAU OF FOR- ESTRY, AGRICULTURAL DEPARTMENT.

The CHAIRMAN. Mr. Price, it has been suggested by Congressmen here that the Government, having taken over this big body of timber, controls the lumber market absolutely in the section complained of and is asking monopolistic prices for the timber.

Mr. PRICE. When the reserves came over to the Department of Agriculture, timber was being sold from them at a set price of a dollar a thousand. No study was made on the ground to determine the value or the differences in value on certain reserves under different conditions. The thing was handled in a purely clerical way, at a set price of a dollar a thousand. When we took the reserves one of the first things we did was to put expert lumbermen in touch with the timber-sale business on the ground, to vary the prices of different species of timber, and under different sets of conditions, and to get as nearly as we could what the timber was actually worth. In no case have we tried or are we trying to make the business pay "all the traffic will bear," so to speak. We are trying to encourage the timber-sale business and to leave in each case a fair margin of profit.

The best proof we can give you that we have been fairly successful in that is that we now have under sale about a billion feet. If we had the trained men to handle the business in the way we would like to, we could easily run those sales inside of a year up to double that amount. We have applications already that will pretty nearly double it. Our timber is going like "hot cakes," so to speak. It is going very freely.

The CHAIRMAN. Notwithstanding, then, these high prices that you are supposed to ask, they are buying it?

Mr. PRICE. They are buying it like "hot cakes," and would buy double the amount that they do if we had the men to handle the business. What has happened in the past is that big lumber owners in the West have gotten Government timber so cheaply that it has paid them to buy Government timber and hold their own for a rise of value.

Mr. SCOTT. That is a very important point.

Mr. PRICE. And we have run up against just this kind of cases: Cases where a man has come to buy timber and has offered a certain amount for it, and we have found that he had some hundreds of thousands of acres, in some cases, of timber of his own which he could have used.

The CHAIRMAN. But he preferred to allow it to grow, and buy Government timber cheaply?

Mr. PRICE. To allow it to grow, and buy Government timber cheap. I think I can give a characteristic example of just that kind of objection, sir, and of what there is in it.

Shortly after we got the reserves there was an application for the purchase of 50,000,000 feet of lumber by the McShane Lumber Company, in the Big Horn Forest Reserve in Wyoming. We looked up the McShane people and their transactions with the forest reserves before they were transferred to us, and found that they had been frequent and quite considerable purchasers of the reserve timber, and that the reserve timber had been sold to them for a dollar a thousand. They applied for this new batch of 50,000,000 feet at a dollar a thousand. We knew it was a rough country, that the timber was not very good, and we were just about to close the sale when it occurred to us that it might be a good plan to send a trained man out there and have him look it up. We sent the best man we had, and he reported that the timber was worth \$2.50 a thousand. In other words, there would be a saving of \$75,000 on that sale if we could get it. We got his report and were satisfied that that was a fair price.

We asked him if he was charging all the traffic would stand, and he said no; that as a lumber man he was assured that that was a fair price for that timber, and allowed a fair margin of profit, and we stood on his report.

The lumber company's representatives came in and threw up their hands, and said that they had been buying Government timber for a dollar a thousand; that on the basis of that they had made a contract in advance with the Burlington Railroad for ties, and that if they paid \$2.50 they would be losing money hand over fist, and would be put out of business. We took their statement for what it was worth, and advertised the timber for \$2.50 a thousand, and they bought it. Not only have they bought it, but a few weeks ago the senior member of the firm was in Washington, and they now want to buy approximately 30,000,000 feet for the same price and on the same watershed, in addition to the 50,000,000 they have now. So we do not put much reliance on that class of "kick."

Then again, Mr. Chairman, another valuable point, I think, is that although our sales to big companies are increasing, our sales to the small men are increasing much more rapidly, in a much higher ratio. Our sales that are most active now are our small sales on the reserves—what we call supervisors' sales. The distinction is that the supervisor sells up to 5,000,000 feet, while above 5,000,000 feet the sales are made by the Forester, and handled at this end.

Then again, of course, sir, it stands to reason that there are certain bodies of timber in the reserves which can not be exploited by the small man. For instance, take that body of timber in the Big Horn Forest Reserve. There is no local use there, or comparatively very little. The small man would never have wanted that timber. If he

had, he could not have gotten it out at a profit, because it involved the building and maintenance of a flume over 20 miles long and exceedingly expensive permanent improvements before they could cut a stick at a profit. It needed capital to utilize that timber at all. It was not a small man's proposition. We have handled a great many propositions of that kind, and we try to keep for the small man the most readily available timber, which he can get out easily without excessive outlay.

The CHAIRMAN. How available was this timber that he paid \$2.50 for?

Mr. PRICE. It was loblolly pine timber, to be put into railroad ties for the Burlington Railroad, cut in the high mountains and driven about 20 miles by flume—very difficult logging operations, indeed; but he is logging that timber at a profit and he wants more.

Mr. SCOTT. Heretofore, and indeed at present, all of this heavy fir timber on the Pacific coast, which you say runs sometimes 100,000 feet to the acre—

Mr. PRICE. Or more—yes, sir.

Mr. SCOTT (continuing). Or more has been sold, and where it is yet on the public domain it is open for sale at \$2.50 an acre, is it not?

Mr. PRICE. Yes; yes; it is still.

There is just one other point regarding that statement that we can monopolize timber and arbitrarily regulate lumber prices: We can never do either of those things, because the timber in the forest reserves is very, very trifling in amount, compared to the timber in private hands in the West.

Mr. SCOTT. Can you give us an idea of the number of acres of timber in the reserves that is a lumberman's proposition, or the percentage of it, if that would be easier?

Mr. PRICE. The percentage of it probably would be about half; from a half to two-thirds. We simply do not know yet. The thing is too new, but it will not fall below a half, and it may go up to two-thirds. Then another reason, sir, why we can not arbitrarily fix or influence to a considerable degree lumber values is that the stumpage price of the tree, of the lumber on the stump, is a very insignificant factor in fixing the value of the lumber itself. It is only a very small part of it. For example, in the case of lumber where the stumpage is worth \$4 the lumber may be worth \$30 or \$40. The stumpage value is only one-tenth of the value of the finished product.

Mr. SCOTT. That depends altogether, does it not, on the conditions under which the timber is cut?

Mr. PRICE. It does; but in no case that I know of does the cost of the stumpage represent a considerable part of the value of the finished product. It does not influence it to a material extent. It is the cost of manufacture and transportation to market. I have a couple of diagrams here which might interest you. This shows the rise in lumber values for four important commercial trees in the last ten years from 1894. For instance, white pine has gone up from \$47 a thousand in 1894 to \$91 a thousand at present—nearly doubled. Cypress has gone from \$31 to \$42. That is just an indication of how prices are going up.

(The committee thereupon adjourned.)





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HEARINGS AND ARGUMENTS

BEFORE THE

COMMITTEE ON BANKING AND CURRENCY

OF THE

HOUSE OF REPRESENTATIVES

ON

PROPOSED CURRENCY LEGISLATION.

FIFTY-NINTH CONGRESS, SECOND SESSION.

1906-7.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1907.

COMMITTEE ON BANKING AND CURRENCY,

FIFTY-NINTH CONGRESS.

CHARLES N. FOWLER, N. J., *Chairman.*

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GEORGE S. LEGARE, S. C.

CHAS. S. GREENWOOD, *Clerk.*

COMMITTEE ON BANKING AND CURRENCY,
HOUSE OF REPRESENTATIVES,
Tuesday, December 11, 1906.

The committee met at 10 o'clock a. m., Hon. Charles N. Fowler in the chair.

The CHAIRMAN. Gentlemen, we have taken occasion, under the resolution passed the other day, to consider such suggestions as the President and the Secretary of the Treasury and the Comptroller have made with regard to currency legislation, to invite here the Bankers' Currency Commission in order that we may hear what they have to say in defense of their declaration of principles, and I understand that they have come here with the idea of joining with us in the investigation of this subject, and that they will be heard seriatim, if you desire to call upon them.

If you gentlemen have agreed upon anyone who shall act as your spokesman, as the first defender, we will hear you.

Mr. POWERS. The subject before the committee is the one of credit or asset currency?

The CHAIRMAN. I have mentioned the resolution that we passed to consider the suggestions made by these gentlemen; and they said that something ought to be done; and now we will see what these gentlemen say ought to be done. You are correct; the subject is currency reform—currency legislation. Have you gentlemen agreed upon anyone to address us first? Mr. Hepburn, whom of your body will we hear first?

**STATEMENT OF MR. A. B. HEPBURN, PRESIDENT OF THE CHASE
NATIONAL BANK, NEW YORK.**

Mr. HEPBURN. Mr. Chairman and gentlemen, we have not come here with the idea of affording you gentlemen information upon the subject of currency—a subject which you have of your own inclinations, and in discharge of your official duty, necessarily been studying for a very considerable length of time. We have come here more for the purpose of a conference; and that plan which we adopted some few weeks ago will hardly need discussion, and certainly not defense, before this committee. Everyone of the propositions embodied in our plan are covered by the report and the bill which you reported to Congress last session. The distinctive difference between the two propositions, if you will compare them, is that we do not go quite so far as you do, and our recommendations are not quite so broad. This subject of currency is most interesting.

It is rendered so by the peculiar conditions which are existing in our country to-day, and which we have never experienced before. It has always been possible for New York or the country as a whole, whenever they have needed money, to get it from Europe, at a price. In 1893 we paid 3 per cent premium for gold that we brought in then in order to provide currency and enable us to make up the pay rolls

for our constituents. Recently, with the aid of the Secretary of the Treasury (and with more or less cost to the bank—that is, the banks losing the 25 per cent reserve that they are obliged to keep on deposit while gold was being imported), we imported \$40,000,000 this last fall to relieve the situation.

Now, we are told by no less authority than the governor of the Bank of England that we can not import any more gold. We are told we must pay up our indebtedness; that we have all the money necessary for legitimate purposes, and if there is any more needed it is for gambling, for speculation, and that any attempt to purchase gold abroad would be met by raising the discount rate of the Bank of England, and possibly also of the Imperial Bank of Germany. That is the condition that confronts us at the present time. We have more money in the country than we have ever had, and the question is, What is it doing and where is it performing its function? Take the city of Chicago, which is the largest currency distribution center of the country at the present time. They have shipped in the eleven months ending the 1st of December, 1906, \$63,000,000 more currency than they have received during the same length of time. They have shipped that, not East, but to the interior—to the clientele they serve.

What is that money doing and where does it go, and why does it not come back to Chicago, and why does it not come back to the east? The associated banks of New York lost \$1,000,000 in money last week. This money keeps going from the seaboard to the interior; it goes to the large distributing centers—Chicago, New Orleans, St. Louis, and San Francisco—in turn to other places, and it does not seem to come back. The added wealth of the people enables them to carry more in their pockets. The increased cost of everything necessitates their carrying more money in their pockets to meet the situation. The absorption exists, and it is a strain upon the business and monetary conditions of the country.

We feel it in New York no more than they do elsewhere, and this talk about it being a Wall street speculation and manipulation of the rate is all nonsense. Where banks are losing money day after day they are not lending money at high rates; they are calling money in in order to meet the withdrawals made upon them. The banks of this country make more money at a 4 per cent money rate than any other. If money was worth 4 per cent I would have from fifteen to twenty millions more deposits than I have to-day, and from twelve to fifteen millions more loaned than to-day, and my total earnings would be greater than to-day. Under existing money strain we have to call in money we have loaned on demand to meet withdrawals. It is not a Wall street speculation and the condition is not peculiar to Wall street nor to this country; it is felt all over the world. Germany was hard up in 1901 and 1902 from over-extended enterprise, and had large bank failures, and they told me in Berlin that they would have had a great deal more serious difficulty except for their currency law, which allows them to issue such currency as is needed to meet the situation, subject to a high tax. London, the money center of the world, has become alarmed over the situation and the strain they are subject to, which is clearly shown in their public interviews and the letters they write us on the subject.

These are the conditions that are obtaining, and it would seem that something ought to be done to give to our currency a degree of elasticity which will enable the banks of the country to meet the business demands and protect the business interests of the country. With this object lesson before us, and with all history of banking institutions in the past before us to clarify the situation and guide our action, it would seem to be an excellent time to adopt the necessary reforms.

As to specific measures a commission created by the American Bankers' Association, consisting of fifteen representative bankers from various parts of the country, representing national and State banks, savings banks, trust companies, and private bankers, recently convened in Washington, and, after much deliberation, formulated principles and unanimously recommended a plan for improving the currency. It is not a comprehensive, scientific plan, but one involving simple changes in present law which, it is believed, will prove of material advantage to the business interests of the country. The essential feature of the plan, and the one destined to provoke the greatest discussion, is the recommendation for a credit currency. The commission says:

We are unanimously of the opinion that changes in the existing bank-note system are imperatively required. We find that the present volume of bank notes is wholly unresponsive to the demands of commerce. It does not expand with the need for currency in the crop-moving period, causing stringency, nor contract when the uses for currency are less extensive, causing redundancy. We find that the banks are under the necessity of parting with their reserve money to supply the demand for currency at certain seasons, although that demand would be quite as well satisfied if banks could supply their credit notes instead of depleting their reserves and causing a contraction injurious to business.

And, to remedy this defect, the commission recommends:

1. Any national bank having been actively doing business for one year and having a surplus fund equal to 20 per cent of its capital, shall have authority to issue credit notes as follows, subject to the rules and regulations to be determined by the Comptroller of the Currency:

- (a) An amount equal to 40 per cent of its bond-secured circulation, subject to a tax at the rate of $2\frac{1}{2}$ per cent per annum upon the average amount outstanding. * * *

- (b) A further amount equal to $12\frac{1}{2}$ per cent of its capital, subject to a tax at the rate of 5 per cent per annum upon the average amount outstanding in excess of the amount first mentioned.

2. The same reserves shall be carried against credit notes as are now required by law to be carried against deposits.

The plan also provides a 5 per cent guaranty fund to be contributed by the banks taking out circulation at the inception, which shall be kept good by imposing a tax upon the circulation issued, and out of that fund the Government shall redeem the notes of all failed banks, immediately upon presentation. The notes of all solvent banks are to be redeemed at "numerous redemption cities, conveniently located in various parts of the country," to be designated by the Comptroller of the Currency. The present bank notes are good beyond question, but their volume is in no degree responsive to the varying demands of business; no bond-secured circulation ever can be. In order to take out \$100,000 circulation under the present law, a bank must first purchase and deposit with the United States Treasurer \$100,000 in Government bonds. The present cost of these bonds would be \$104,000. The bank, therefore, is compelled to invest in bonds \$4,000 more than it is permitted to issue in notes, thereby impairing instead

of increasing its ability to serve the commercial needs of the public by taking out circulation.

That the proposed notes would be good beyond peradventure is a conclusion that must follow a candid analysis of the plan. A bank note is a demand obligation, in principle and in practical effect essentially the same as a bank deposit. A bank deposit represents a specific voluntary act on the part of the depositor; a bank note is issued in form convenient for transmission from hand to hand; its reception, however, is wholly voluntary, and yet, being allowed to circulate as money, it is the bounden duty of the Government authorizing the same to see that the ultimate redemption of such notes is placed beyond doubt or delay. The national banks, at the present time, have deposits placed with them by the public amounting to \$5,897,777,000. The banks are required to keep cash reserves against such deposits—25 per cent in cash in central reserve cities; in reserve cities 25 per cent, one-half in cash in bank and one-half with an approved reserve agent in a central reserve city; other banks are required to keep 15 per cent reserve, two-fifths of which must be in cash in bank and three-fifths of which may be with an approved reserve agent. The banks are required to make five sworn reports of conditions annually and to publish the same, and compliance with the law is enforced by supervision and regular examination. With the growing wealth of the community at large, the principal element of banking power has come to be deposits, which, in the national system, are more than four times the capital and surplus. Deposits with national banks, these demand liabilities, have grown regularly and continually since the organization of the system—from \$725,000,000 in 1866 to \$5,897,000,000 in 1906—and public confidence has grown with them. These demand liabilities, deposits, increased by \$382,000,000 during the year ending October last, and nobody thought that the banks were weakened thereby. The plan under consideration contemplates the issue of currency against the credit, the financial responsibility of the banks in an amount not exceeding 25 per cent of the capital stock, at a fair rate of taxation ($2\frac{1}{2}$ per cent), and an amount equal to $12\frac{1}{2}$ per cent of the capital stock, at 5 per cent taxation, such currency to be protected by the same reserves as are required against deposits, and also by a 5 per cent guaranty fund maintained in the Treasury of the United States. Should every bank avail itself of the maximum privilege at the same time, a most improbable if not inconceivable happening, such currency, such demand liabilities, would thereby be increased far less than the demand liabilities of the banks were increased last year by the growing volume of deposits.

The popular misunderstanding of the currency question is largely due to the fact that the public does not realize that the liability of a bank is essentially the same whether it issues a bank note (title to which passes by delivery), a certificate of deposit, a cashier's check (title to which passes by indorsement), or grants an open credit upon its books. They are all demand liabilities, and must be redeemed in lawful money when required. The history of the national banking system for forty-two years shows that an annual tax of one-fourth of 1 per cent levied upon outstanding bank-note circulation would have raised an amount more than sufficient to have redeemed every note of every failed bank, and that, too, without reference to

the Government bonds deposited as security. This plan provides a guaranty fund at the outset of 5 per cent, which is to be maintained from the proceeds of taxation. From this fund the Government must immediately redeem the notes of all failed banks which may be presented; of course, going banks will redeem their own.

Vital statistics covering a period of years enable life-insurance companies to conduct their business with safety and reasonable certainty. Data covering destruction of property by fire in the past enable fire-insurance companies to gauge with reasonable certainty the losses of the future and to predicate their business with safety thereupon. Bank mortality is much more easily and accurately ascertained. As to no business in the country do we possess such exact information as we do with reference to banks. If, then, the business of the life and fire insurance companies can be safely predicated upon the statistics of the past, it is idle to argue that the proposed credit currency will not be rendered safe beyond peradventure by the guaranty fund provided, to say nothing of reserve. The plan properly gauges the authorized currency in proportion to the amount of circulation secured by Government bonds. British consols, paying 2½ per cent interest, sell at 86½, and German imperial 3 per cents sell at 85; United States 2 per cents sell at 103½. The reason of this is not that the financial credit of the United States is so much better than that of England or Germany, but that United States bonds are usable as a basis for bank circulation, issued at par and subject to the very low tax of one-half of 1 per cent per annum. The very low interest rate at which the Government has its indebtedness carried and the very high price at which it is able to sell its bonds (the last issue of Panama bonds averaging 104), represent, in effect, a contribution to the Treasury of the United States by the national banking system. But for their use as a basis of circulation, these bonds would approximate the same level in price as the obligations of other first-class nations. The higher the credit of a nation the higher the credit of its citizens; the proposed plan, therefore, wisely guards against the depreciation of Government bonds by proportioning the credit currency thereupon. The plan provides for the issue of 12½ per cent of a bank's capital without relation to bond-secured notes, subject to a tax of 5 per cent. A 5 per cent tax with 25 per cent reserve would make such currency cost the banks 6½ per cent, not including the expense, clerical and otherwise, in issuing, handling, and redeeming such notes. Manifestly, such currency would be used only in emergency. Let us see how the plan would work. A New York bank with \$5,000,000 capital, in order to avail itself of the maximum of credit currency, would take out 62½ per cent of its capital in currency secured by United States bonds, \$3,125,000; credit notes (2½ per cent), \$1,250,000; emergency notes (5 per cent), \$625,000; total, \$5,000,000. Without taking out any bond-secured notes or any low-tax credit notes, such bank might, in an emergency, issue the \$625,000 subject to the 5-per-cent tax, and thus, under the sanction of law, afford the public the relief which has heretofore been crudely and partially afforded by the use of clearing-house certificates. I say "crudely and partially," for the use of clearing-house certificates amounts to a suspension of currency payments as between banks, and thus savors somewhat of repudiation of contracts. Clearing-house certificates are no longer

available as a means of relief. Their issue by any city would be hailed as a danger signal, and would divert from such city a greater amount in exchanges withheld than could possibly be equaled in the use of clearing-house certificates. The maximum amount of clearing-house certificates issued by New York at any one time is \$41,490,000. The daily exchanges of the New York clearing house last year averaged over \$300,000,000. The fear of clearing-house certificates and inability to collect in currency would induce the withholding of exchanges and the diversion to other points of an enormous amount. Besides, we have become a world power in matters of finance, and the world must know that any funds deposited can be withdrawn any time and in any form at the option of the depositor. It is therefore of the highest importance that the Government provide instrumentalities for preventing an emergency, if possible, and tiding it over if it must come. The currency, subject to the lower tax, would enable the banks in different sections of the country to meet quietly and satisfy the local demand, thereby preventing the situation from becoming acute. What we really need is a currency that will prevent emergencies. Business should, however, have the additional safeguard of a highly taxed, expensive currency that may be resorted to in cases of extreme need. The criticism is made that the tax of 2½ per cent is too low; that the interior banks would issue this currency and keep it out all the while; that it would amount to inflation. If that be true, the rate of taxation should be increased; but let it be remembered that the cost of redemption is very considerable and somewhat difficult to estimate. The cost of issuing and redeeming a note which remains outstanding only three days is quite as great as if it remained out a year, and, with proper facilities for redemption, the commission believes it impossible to keep this currency out for any considerable length of time. The national-bank notes presented for redemption last year amounted to \$278,550,060; of this amount \$136,252,360 was presented from New York City and \$50,000,000 from Boston, Philadelphia, and Baltimore. Under the present law, national-bank notes are redeemed in Washington, and the reason there are not more presented for redemption is found in the expense and the loss of interest incident thereto. The reason that so great a proportion is presented from near-by places is because of the lessened cost and the fact that reserve money is received in exchange therefor. The present bank notes circulate in the city of New York only so long as they remain in the hands of the people. As soon as they are deposited with the banks they are forwarded to Washington for redemption, and in exchange therefor money is received which counts in a bank's reserve. With redemption agencies established in every State in the Union, so that this credit currency would always be within twenty-four hours of a redemption agency, it is certain to be presented for redemption. Every bank, where bank currency is available, will use its own notes and send in the other banks' notes for redemption, instead of paying them out over their counter as now.

The fear that this currency will be put out by interior banks and kept out is dissipated in the light of experience. They can not keep it out. The average life of a credit note, with ample redemption facilities, is in sharp contrast to the life of our bond-secured notes

redeemable at Washington on the extreme eastern border of the country, and is well illustrated by the following averages:

	Days.
The note of the Scotch banking system remains out.....	18
The note of the Canadian banking system remains out.....	30
The note of the New England (Suffolk) banking system remains out.....	45
The note of the national banking system remains out.....	730

The Dominion of Canada is composed of Provinces and enjoys the advantages of a credit currency. Her bank notes were at a discount in the different Provinces until a Dominion law required redemption agencies to be maintained in each Province; since then they have passed at par. With our wonderful facilities for transportation, is it not fair to assume, then, that the average life of a credit note in this country would not exceed thirty days?

The charge that this currency would be utilized by the New York banks in the interest of Wall street is wholly without foundation. Neither bank notes nor any other form of currency enter into Wall street transactions. Such transactions are consummated by means of checks. Reserve money may be the basis of credit extended to Wall street, but bank notes can not be, and, as we have seen, as soon as national-bank notes reach the banks they are forwarded to Washington for redemption and reserve money received therefor. Hence the proposed currency is not a device in the interest of Wall street. The practical operation of the law would, I think, be this: During crop-moving periods the banks outside of reserve cities would first utilize their power to issue notes in order to satisfy the demand made upon them, instead of calling, as now, upon reserve cities for currency. Their power in that respect utilized, the reserve cities might in turn issue currency; and if the demand increased a point might be reached where central reserve cities could issue currency and keep the same in circulation until the crop-moving period had passed, or other demand, whatever its occasion, had been satisfied. The benefit which would accrue to New York, Chicago, St. Louis, and other money centers would be indirect in removing or relieving the demand upon their reserve money which every fall brings around. This fact can not be too strongly emphasized, that ample redemption facilities, with the general redemption which would follow, is a complete answer to the charge that the proposed currency would amount to inflation, and that interior banks would keep the maximum out at all times. They could not keep it out unless the business demand for currency was pronounced and extreme, and then it should be kept out in the interest of the general welfare. Whenever the money rates relax and the currency demand lessens it would flow in for redemption. That is proven by experience where credit currency has been and is being used. The self-interest of each bank will facilitate the redemption of the notes of all other banks. The best of our old State banks vindicated credit currency; notably, the saving-fund system in New York and the Suffolk system in New England. Belgium, Germany, France, Austria, Scotland, and Canada, by their systems now in operation, afford practical proof that the proposed currency plan is both safe and wise. Our present currency law was enacted by Congress more than forty years ago for the avowed purpose of making a market for Government bonds, which were made a basis for circulation. Our Government enjoys the highest credit

enjoyed by any nation and its bonds are eagerly sought, and yet the currency law remains unchanged. We are the greatest commercial nation, and yet our currency is least adapted to the varying needs of commerce. The adoption of credit currency in this country is inevitable; is it not wise to take a lesson from our competitors in world commerce and inaugurate a change now?

I do not wish to take up more of your time in the discussion of specific measures, but there is one thing that I do want to bring to your attention. We have with us one gentleman who has had a most varied and unique, as well as phenomenally successful, banking and business experience. He is at the head of one of the largest banks in this country, and during the course of his banking experience he has been twelve years in banks that were operating under a credit currency system in Scotland and Canada; and while all that we know about it—the rest of us here who have lived in this country—is one side of the question, we having operated under our bond-secured currency (although we may have studied the other systems), the gentleman to whom I refer has worked under other systems and has made money under them for himself and for his constituents; and we, as members of the commission, would like to have you gentlemen hear him discuss this subject, and present it from his standpoint and the standpoint of his experience. And we would also like to have you hear briefly the other members of this commission, representing the various sections of the country, in order that, if necessary, emphasis may be given to the point that this demand for the doing of something is as broad as our country, and comes from business interests of the country. Gentlemen, you of course know that I refer to Mr. Forgan, whom I have the pleasure of introducing.

STATEMENT OF MR. JAMES B. FORGAN, PRESIDENT OF FIRST NATIONAL BANK, CHICAGO, ILL.

Mr. Chairman and gentlemen of the committee: I did not come here prepared to make any exhaustive address to this body. I was called here by our chairman to a meeting of this commission in Washington, and before coming here I had prepared, with more or less care, and rather more exhaustively than I could possibly go into here, a review of the currency commission's recommendations and their plan. That has been printed. I have succeeded in getting, I may say, the indorsements, first, of the Illinois Bankers' Association Executive Council, that met in Chicago shortly after the commission met here. It unanimously indorsed our recommendations.

Then I met the Commercial Club in Indianapolis, where we had a very large meeting of two or three hundred business men of Indianapolis, who also unanimously indorsed—I believe, perhaps, there was one vote against it, but practically unanimously indorsed—our plan. Then, last Saturday night I met the bankers of Chicago in a body—the Bankers' Club of Chicago—who gave a strong indorsement of the principles and plan of the commission.

I mention these matters to show that an interest is being taken wherever the subject has been brought up, and that it has been indorsed everywhere except in Nebraska.

Mr. JAMES. Do they oppose it there?

Mr. FORGAN. They opposed it, yes; but they only half opposed it.

They opposed our plan, but admitted the necessity for something being done, and they indorsed a high-taxed emergency currency.

MR. WEEKS. Was that the State Bankers' Association?

MR. FORGAN. The State Bankers' Association, yes. If you will allow me to talk on this subject in an informal way, I will point out some features of the plan as proposed by our commission. We recognize that the last report of this committee to Congress covered the ground more fully than even the studies of this commission have been able to do; but this commission is composed of practical men from all parts of the country who are not only acquainted with the opinions and the sentiments prevailing in the various parts of the country, but who are alive to the fact from their daily business experience that there is great need of some currency reform.

They very soon decided that anything to be done by Congress in this matter would have to be of an experimental nature. They therefore decided that they should not recommend going very far for a first step. They also immediately recognized the fact that under our present national banking system the market for Government bonds depends extirely or almost entirely on the market created for them by the national banking act, which requires the banks to buy them as a basis for their circulation, and that if anything was done to interfere with existing conditions it would interfere with that market, which neither the Government nor the banks of the country could afford, because the banks themselves own over seven hundred million dollars of these Government bonds among their assets, and they could not afford to have them depreciated any more than the Government could afford to have the market for them destroyed.

So we decided that any addition to the present currency must bear some relation to the existing bond-secured currency now in existence. The next step. On looking at the Comptroller's report for September, which had just been issued, we found that the total capitalization of all the national banks at the present time is \$835,000,000; that the total amount of the outstanding circulation of the banks is \$518,000,000, and therefore the present outstanding notes are just 62½ per cent of the capital of the banks. We saw, therefore, that there was an opportunity of adapting the 37½ per cent privilege of issue that the banks have not availed themselves of to a further issue on a different basis. So we conceived the idea of permitting the banks to issue 40 per cent of their outstanding bond-secured circulation—that is to say, 40 per cent of the 62½ per cent they have now. That would be just 25 per cent of their capital. So we put it this way: Forty per cent of their outstanding bond-secured circulation, but not more than 25 per cent of their capital. In that way it would bring the circulation up to 87½. That would leave 12½ per cent still available without increasing their present privilege of issue. So we added the 12½ per cent of high-taxed currency—that is to say, subject to a tax of 5 per cent. So that a bank with \$100,000 capital wishing to avail itself of its full privilege (on our recommendations being carried out) would first acquire \$62,500 of Government bonds and take out \$62,500 of present bond-secured currency against them; add to that 40 per cent of that amount, which is 25 per cent of its capital at 2½ per cent tax, and then in addition to that another 12½ per cent at 5 per cent tax, making the full privilege of 100 per cent of its capital.

We find the sentiment of the country pretty much divided, as it was

in the Nebraska State Bankers' Association, between a low taxed credit currency and a high taxed emergency currency. Of course you can give it any name, but these names indicate what I mean.

The advocates of the high taxed emergency currency claim that in an emergency or in anticipation of an emergency this highly taxed currency could be put out by the banks and that it would enable them to tide over a period of stringency, and that the high tax on it preventing profit would cause them to retire it as soon as monetary conditions adjusted themselves. They would retire it by depositing legal tender money with the Government to redeem their notes when redemption of them should be required, and thus they would be relieved of the high tax on them and of the ultimate responsibility for their redemption. On the other hand, it is claimed by the advocates of a low taxed credit currency that it would automatically in a tight money market or in any easy money market adjust itself daily to the actual requirements of commerce.

This adjustment would be accomplished by the active daily redemption which would take place. Such redemption and adjustment takes place wherever such a currency exists—in Canada or in Scotland, in both of which countries I have had experience of it. In these countries what we talk of as a redundancy of the currency never occurs, and a scarcity of it never occurs. In neither of these countries have the banks ever been able to even approximately use their full privilege of issue, and their issues fluctuate with the fluctuations and the varying demands of business, so that in the fall of the year it goes up to its maximum and in the spring is reduced to its minimum. In other words, they have there what we would like to have here, a currency that is called into existence by the demands of commerce when and as it is wanted, and as those demands slacken it diminishes in volume and all that is not needed disappears and ceases to be reckoned as money, or as any part of the circulating medium of the country.

Our present bond-secured bank currency, as you are all well aware, and our Government paper money bear absolutely no relation to the fluctuating demands of commerce. It is issued in a fixed amount, and so far as the bank currency is concerned there has been a continuous increase of it naturally, because the banking capital has increased; but there is no fluctuation of it that corresponds with the fluctuating requirements of trade, absolutely none. In the fall of the year, when the demands of trade and commerce are the greatest, it is the same in volume of issue as it is in the spring, when those demands are lowest.

This tends very largely to produce conditions such as we are experiencing now, as stated by Mr. Hepburn. The trouble goes back to the time when speculation was encouraged by the redundancy of the currency in the banks in New York and in Chicago—not any more, however, in New York than in Chicago or in the other central reserve cities.

When the currency returns from the country, where it has done its work, we lock it up in our vaults and feel very rich; we see the big pile of bills and deceives us. We count it as if it were real money, just as if we had our vaults full of gold, when we have simply this currency, either Government or bank currency, which are mere representatives of money, but not money. They are mere promises to pay money. Now, whenever we experience this redundancy, at the

same time that it increases our cash reserves it also increases our deposits, and both are inflated thereby. We pay 2 per cent on such deposits to the country banks, and there is only one market in the country where we can use them; that is New York. There is only one call-money market in any country; that is, at its financial center.

We force our money out at such times and the banks in New York, the great center of finance in the country, try to save themselves by pushing it out and lending it sometimes as low as $1\frac{1}{2}$ per cent. They pay 2 per cent on the deposits which they are thus trying to lend, and so they do business at a loss. This is all caused by the want of elasticity in our present currency, which when it accumulates in the banks causes that kind of forced effort to get it out at low rates, and then in the fall of the year when the country wants it again it has to be shipped back, reducing reserves, curtailing loans, creating money stringency, and causing high rates of interest.

Mr. WEEKS. That is all demand money.

Mr. FORGAN. That is all demand money in the central banks and can only be safely loaned on demand. In the fall of the year it goes out suddenly and quickly. As an illustration I may mention a fact. During the first seven business days of October this year the First National Bank of Chicago shipped \$3,500,000 to the banks of the country. I mention this to show you the strong demand from the country for money at that time of the year. That is what always takes place at the crop-moving period. It usually takes place at the beginning of September and at the beginning of October, then it goes out with a rush.

Mr. WEEKS. Was that net?

Mr. FORGAN. That was net loss to our cash on hand, for we were getting nothing in from the country, and we had to take it right out of our own vaults or draw it from our New York correspondents. Now that sort of thing is brought about—it is not all brought about, but it is largely brought about—by the inelasticity of our present bond-secured currency. We want to make it elastic; we don't want these periods of redundancy and inflation; we want them prevented, and therefore we want to get rid of all redundant bank currency not kept in actual circulation by the requirements of commerce. There is only one way of getting rid of it, and that is the redemption of it by the banks whose outstanding obligation it is. There is no object for redeeming our present bond-secured currency.

There are no adequate facilities for its redemption if we wanted to redeem it, and it is simply not actively redeemed. But with a credit currency each bank has a strong inducement to push its own notes into circulation, and therefore an incentive to be all the time collecting the notes of all other banks and putting them in the clearing house every morning for redemption. My friend, Governor Powers—I see him here, and I have not seen him for many years—puts me in mind of my young days when I did banking in Canada on the border of the State of Maine. I was located within 10 miles of where he lived. An incident comes to my mind as I am talking that I think would impress itself better on you than theory. When I was manager of the Bank of Nova Scotia, in Woodstock, New Brunswick, and Governor Powers was over in Houlton, Me., I used to do considerable business in Houlton and got considerable circulation of the Bank of Nova Scotia notes along the borders of Maine through the

in the Nebraska State Bankers' Association, between a low taxed credit currency and a high taxed emergency currency. Of course you can give it any name, but these names indicate what I mean.

The advocates of the high taxed emergency currency claim that in an emergency or in anticipation of an emergency this highly taxed currency could be put out by the banks and that it would enable them to tide over a period of stringency, and that the high tax on it preventing profit would cause them to retire it as soon as monetary conditions adjusted themselves. They would retire it by depositing legal tender money with the Government to redeem their notes when redemption of them should be required, and thus they would be relieved of the high tax on them and of the ultimate responsibility for their redemption. On the other hand, it is claimed by the advocates of a low taxed credit currency that it would automatically in a tight money market or in any easy money market adjust itself daily to the actual requirements of commerce.

This adjustment would be accomplished by the active daily redemption which would take place. Such redemption and adjustment takes place wherever such a currency exists—in Canada or in Scotland, in both of which countries I have had experience of it. In these countries what we talk of as a redundancy of the currency never occurs, and a scarcity of it never occurs. In neither of these countries have the banks ever been able to even approximately use their full privilege of issue, and their issues fluctuate with the fluctuations and the varying demands of business, so that in the fall of the year it goes up to its maximum and in the spring is reduced to its minimum. In other words, they have there what we would like to have here, a currency that is called into existence by the demands of commerce when and as it is wanted, and as those demands slacken it diminishes in volume and all that is not needed disappears and ceases to be reckoned as money, or as any part of the circulating medium of the country.

Our present bond-secured bank currency, as you are all well aware, and our Government paper money bear absolutely no relation to the fluctuating demands of commerce. It is issued in a fixed amount, and so far as the bank currency is concerned there has been a continuous increase of it naturally, because the banking capital has increased; but there is no fluctuation of it that corresponds with the fluctuating requirements of trade, absolutely none. In the fall of the year, when the demands of trade and commerce are the greatest, it is the same in volume of issue as it is in the spring, when those demands are lowest.

This tends very largely to produce conditions such as we are experiencing now, as stated by Mr. Hepburn. The trouble goes back to the time when speculation was encouraged by the redundancy of the currency in the banks in New York and in Chicago—not any more, however, in New York than in Chicago or in the other central reserve cities.

When the currency returns from the country, where it has done its work, we lock it up in our vaults and feel very rich; we see the big pile of bills and deceives us. We count it as if it were real money, just as if we had our vaults full of gold, when we have simply this currency, either Government or bank currency, which are mere representatives of money, but not money. They are mere promises to pay money. Now, whenever we experience this redundancy, at the

same time that it increases our cash reserves it also increases our deposits, and both are inflated thereby. We pay 2 per cent on such deposits to the country banks, and there is only one market in the country where we can use them; that is New York. There is only one call-money market in any country; that is, at its financial center.

We force our money out at such times and the banks in New York, the great center of finance in the country, try to save themselves by pushing it out and lending it sometimes as low as $1\frac{1}{2}$ per cent. They pay 2 per cent on the deposits which they are thus trying to lend, and so they do business at a loss. This is all caused by the want of elasticity in our present currency, which when it accumulates in the banks causes that kind of forced effort to get it out at low rates, and then in the fall of the year when the country wants it again it has to be shipped back, reducing reserves, curtailing loans, creating money stringency, and causing high rates of interest.

Mr. WEEKS. That is all demand money.

Mr. FORGAN. That is all demand money in the central banks and can only be safely loaned on demand. In the fall of the year it goes out suddenly and quickly. As an illustration I may mention a fact. During the first seven business days of October this year the First National Bank of Chicago shipped \$3,500,000 to the banks of the country. I mention this to show you the strong demand from the country for money at that time of the year. That is what always takes place at the crop-moving period. It usually takes place at the beginning of September and at the beginning of October, then it goes out with a rush.

Mr. WEEKS. Was that net?

Mr. FORGAN. That was net loss to our cash on hand, for we were getting nothing in from the country, and we had to take it right out of our own vaults or draw it from our New York correspondents. Now that sort of thing is brought about—it is not all brought about, but it is largely brought about—by the inelasticity of our present bond-secured currency. We want to make it elastic; we don't want these periods of redundancy and inflation; we want them prevented, and therefore we want to get rid of all redundant bank currency not kept in actual circulation by the requirements of commerce. There is only one way of getting rid of it, and that is the redemption of it by the banks whose outstanding obligation it is. There is no object for redeeming our present bond-secured currency.

There are no adequate facilities for its redemption if we wanted to redeem it, and it is simply not actively redeemed. But with a credit currency each bank has a strong inducement to push its own notes into circulation, and therefore an incentive to be all the time collecting the notes of all other banks and putting them in the clearing house every morning for redemption. My friend, Governor Powers—I see him here, and I have not seen him for many years—puts me in mind of my young days when I did banking in Canada on the border of the State of Maine. I was located within 10 miles of where he lived. An incident comes to my mind as I am talking that I think would impress itself better on you than theory. When I was manager of the Bank of Nova Scotia, in Woodstock, New Brunswick, and Governor Powers was over in Houlton, Me., I used to do considerable business in Houlton and got considerable circulation of the Bank of Nova Scotia notes along the borders of Maine through the

lumbermen who went into the woods of Maine to lumber and who brought the logs down the river into New Brunswick to be cut into timber.

One night while I was there a man came down from the lumber camps to Woodstock to receive \$25,000 in currency which had been shipped to him by express from St. John, New Brunswick, by the Maritime Bank. He got in at night, and he could not get back until the morning. He had received this package of \$25,000 from the express company's agent. The agent didn't like to take the responsibility of keeping it overnight, because he did not have a burglar-proof vault, so he said to the man: "Here is your money; take care of it yourself." The man was going to stay at the hotel, and he did not want the responsibility of keeping it overnight, so he looked me up, I being the bank agent in the place, and he knowing me. He came to me and said: "I wish you would take this package and lock it up in your vault and let me have it in the morning; my train leaves in the morning at half past 8, and I must get it before then." I said to him: "I don't care to assume the responsibility of taking care of \$25,000 in that way. I don't know what may be inside of that package, and I would not care to be responsible for such an amount unless I counted the money myself. I would be glad, however, to receive it from you on deposit and put it to your credit in my bank, and then in the morning I will cash your check."

He agreed to this; so we went to the bank and he gave me the package of money, which I counted and credited him with the amount in account. Instead of locking it up in the vault, however, I sealed it up in another package and shipped it immediately to our St. John branch, where it arrived early in the morning and went into the clearings against the Maritime Bank, which bank had to redeem it in gold the day after it had issued it. Next morning when the gentleman came in I cashed his check with \$25,000 in Bank of Nova Scotia notes. I mention this as an illustration of the keenness of competition which takes place when every bank is pushing out its own notes wherever it can find an opportunity and pushing in those of the other banks for redemption; that is the way it works. My reason for doing that was, of course, that it was profitable to the bank I represented to circulate its notes. It was the same as if that man had come in to me and deposited that amount of money and had left it there for some time.

It really remained as a deposit as long as these notes were outstanding, and they certainly would not get back on an average of less than thirty days. So the bank got the use of the amount while its circulation was thus outstanding, and it did not cost it anything except the printing of the notes and the reserve held against it. This is a good illustration of the way it works.

What we want is the elasticity that is produced in that way, and we have recommended in our plan a method of accomplishing it. I have in my printed review illustrated what elasticity is. Shall I do so here?

The CHAIRMAN. I wish you would.

Mr. FORGAN. I will first remind you of the meaning of the word "elasticity." The word has been misused frequently in the discussions of this question, as if it were synonymous with expansion or the power to expand. Now, that is the very reverse of its true meaning

and the very reverse of what elasticity is in the currency. Let me illustrate it in this way: If I take a piece of putty in my hand and pull it out it will expand to the limit of its capacity, and if I lay it down it will remain expanded—it is not elastic; but if I take a rubber band and similarly expand it when I let go it will contract of its own inherent qualities. Now, that is elasticity; rubber is elastic because it will of its own accord contract when outside pressure on it is removed.

The currency should be elastic in the same way and should of its own accord automatically contract when the pressure of business which expands it lets up. The trouble with our currency is that when it is pulled out it remains expanded the same as the putty and never contracts. What we want to accomplish in connection with this credit currency is to have it automatically contract the same as the rubber band does, which will tend to prevent speculation, the putting out of all kinds of securities on an abnormally easy money market and the lending of large amounts in Wall street on call at nominal rates whenever it becomes for lack of redemption redundant in the banks. At present we hold New York responsible for all this. It is not responsible. We send the currency down there and we ask the banks to put it to our credit; their own deposits are thus increased and they have to push the funds out. In the fall of the year when we again want the circulating medium we call on New York and ask them to ship it back to us. It is erroneous to hold them responsible for what thus takes place. It is our system which is wrong and not the agents of our system. Our New York correspondents are merely the agents of our system.

I will just take up one other feature of the subject. I come back to this feature and I don't think I will take up any more of your time. That feature is the difference of opinion among those who are now discussing this question between a low taxed credit currency and a high taxed emergency currency. The advocates of the high taxed emergency currency find their illustration of the working of such a currency in Germany; they point to the Imperial Bank of Germany and they say, "There is the Imperial Bank of Germany, which puts out an emergency currency and pays 5 per cent tax on it and it goes all right and it carries them through." Now, that is just about as erroneous and absurd a statement as could possibly be made. Germany has no emergency currency per se. There is no civilized country on earth that has an emergency currency; there never was an emergency currency ever used in any civilized country in this world, and it could not be used.

In Germany the Imperial Bank, as you stated in your last report to Congress, carries \$140,000,000 of metallic reserve. It is allowed by law to issue an arbitrary amount of \$112,500,000 in excess of that \$140,000,000 of reserve. Whenever in the ordinary course of its business it becomes necessary, it pays out whatever more than that \$112,500,000 may be required or is wanted by the public. It has, however, to make a statement to the Government as to how much it has in circulation. When it is below \$112,500,000 in excess of the amount of its reserves it pays no tax. If it gets above that \$112,500,000 it has to pay 5 per cent tax. The public is not concerned with the fact that it crosses the tax line. The bank does not assume the position of anticipating an emergency; it says nothing about any emergency; no emergency exists; it is simply attending to

the natural ebb and flow of the requirements of business, which it meets in the most legitimate manner possible. The only difference is that its profits stop when it gets to the limit fixed by law, and very rightly so. The Government says: "You can only go to that limit, for we won't give any bank unlimited power of issue, and whenever you go beyond that limit your profit on your excess circulation ceases and must come to us." This is merely legitimate restraint.

The German Bank does not necessarily even raise its discount rate in consequence of having to exceed its untaxed limit. It simply ceases to make anything on its circulation in excess of that limit, and the Government gets all the profit on the excess. But it is a natural and necessary outflowing of the currency to meet the legitimate requirements of commerce. Now, what would we do with an emergency currency; what could we do with an emergency currency? In the first place the name "emergency currency" is a nickname, and it is a nickname which is of itself enough to condemn it and kill it, and I will show you why. Just imagine our six thousand odd national banks, in view of pending troubles, saying to the public, "we anticipate trouble; we are going to have a tight money market; we are going to have an emergency; we are going to have a panic, and in order to prevent it we are going a step beyond our bond-secured currency, based on the obligations of the Government in which the public has absolute confidence, and we are going to ask you to take something which we propose to put out because we are nervous and frightened, and on which we are willing to pay a high rate of taxation."

Wouldn't that scare everybody, just as a banker would be scared if a customer came in and proposed that in view of his dire necessities, instead of on his good collaterals, he wanted his note taken by the bank. There is no difference between those two propositions.

What does this currency commission suggest? We suggest putting out this more or less moderately taxed currency to a small extent, taking one step at a time, but a step in the right direction, an amount equal to 25 per cent of capital to pay a tax of $2\frac{1}{2}$ per cent. This will get the public accustomed to using it and gain their confidence in it, and when the banks have exercised this privilege if they want to use the additional highly taxed privilege they can do so and the public will pay no attention to it. The banks will simply have to settle with the Government on the basis of $2\frac{1}{2}$ per cent to a certain limit and then 5 per cent for the rest of it. That is exactly the principle on which the Imperial Bank of Germany operates.

I think, gentlemen, I have said enough on that subject. There is one other point I would like to touch upon if I am not taking up too much of your valuable time—

The CHAIRMAN. The time is yours until you finish in your own way.

Mr. FORGAN. There are two points that I have made a note of. I see I have jotted down "reserves" and "Wall street," those two other points.

Talking on the question of reserves, we recommend that banks issuing such a credit currency should be required to keep the same reserves against it as they now do against their deposits. To put it shortly, the argument in favor of that, which makes it appear to be absolutely necessary, is this: That when a bank pays a check that is

presented to it in its own notes—and that is about the only method that it has of getting its notes into circulation—it cancels a deposit obligation and creates a demand-note obligation, which, so far as liability is concerned, are exactly the same; they are the bank's obligations payable on demand.

Now, if a bank out in Minneapolis was to acquire to its credit in New York during the summer, say, a million dollars, and in the fall it required to reduce that balance by \$500,000 and receive the actual currency, it telegraphs its New York correspondent, "Charge to my account and ship me \$500,000 in fives, tens, and twenties," and the New York bank ships its own credit notes, the New York bank will only cancel its deposit obligation to the extent of \$500,000 and create a new obligation in the shape of its credit notes which it ships out. If no reserves were to be kept against that \$500,000 credit currency which it ships out it would have increased the per cent of its legal reserve to the balance remaining of its deposits by 25 per cent of that amount, which would be \$125,000. It would then have \$125,000 surplus reserve on which to base a further expansion of credit of \$500,000 in the shape of loans, which would be inflation pure and simple.

Therefore you see that it is absolutely necessary that the banks be kept in check in that way, for every check that a bank pays in its own credit notes to that extent it increases its reserves against the balance of its deposits, and therefore the reserves on circulation and deposits should be exactly the same, because the obligations are exactly the same.

It has been claimed in the discussion that this is simply a Wall street measure; that it is in the interest of Wall street. Now, I have spoken of the way things operate in Wall street and have shown that New York banks are merely the financial agents of the country, which respond to the demands of the country, and it is the calling in of loans that are made by themselves and by banks all over the country to meet the seasonal demand for money needed to move the crops in the fall that produces such stringency as we are having now.

These Wall street operators do not need bank notes in any of their operations; they have a currency of their own. Their currency is the check, and generally the certified check. And it is the most elastic currency in the world, for it is redeemed every morning and brought out anew every day. It is the quickest redeemed of any circulating medium, for it only lasts over night. They issue that kind of currency in their business and they furnish themselves with it as they want it.

Mr. HEPBURN. May I say in that connection that bank notes do not circulate between banks in New York City at all—the present bond-secured notes do not circulate between the banks in New York City at all. I make that statement as one literally correct. As soon as they come in the possession of the banks they are sent to Washington, at the expense of the issuing banks, for redemption, and we get a check in return, which is cashed through the subtreasury, and gives us reserve money, whereas these notes are not reserve money. If we had reserve money it might be used as a basis for extending credit to Wall street, but bank notes are not and can not be reserve money. And to illustrate the working of the present law, we sent in

\$136,200,000 of the present bond-secured bank notes in one year for redemption at Washington. Some banks send them every day.

The CHAIRMAN. You mean that much of all the banks?

Mr. HEPBURN. I mean all the banks send them in; they do not count as reserve. With the loss of interest for two days we get reserve money, and they send them in in that way. The amount returned last year by New York banks was \$136,200,000. For that reason the present bank notes are not made use of in any Wall street or banking operations in New York.

Mr. HAYES. I would like to ask Mr. Forgan, on account of his great experience in this matter, or I would like to suggest to him, rather, that some members of the committee have doubts whether a 2½ per cent tax will be sufficient to make these notes retire as rapidly as would be desirable, and the thought is whether a higher tax would be better for that purpose, so as to make the elasticity to which he refers. I would like to have Mr. Forgan's views on that subject.

Mr. FORGAN. Mr. Chairman, I have tried in my study of the subject to find out what connection there is between a high tax and elasticity. I have been absolutely unable to find it. I can not conceive that there is any connection or that a high tax has anything to do with the active redemption of notes. It goes without saying if you put a high tax on it and give the bank the privilege of retiring it by depositing the amount of it with the Government to redeem it when its redemption is wanted, of course in that way the bank can immediately relieve itself of the obligation for ultimate redemption; but the notes would still be out, and they would be out against the bank, for they are payable by the bank at its own counter, so that even if it had thus retired them it would still be liable to redeem them when presented to it, and then send them to Washington and get its money back.

But in the case of credit currency the lower you make the tax the higher the profit there is in it for the bank and therefore the more active is the competition, which produces the daily redemption of such of it as is not required in circulation. If there is no tax at all, as in Canada, in Scotland, and in Germany, this active daily redemption will take place; the notes will not stay out any more than checks will stay out. Checks are redeemed every morning and so are notes redeemed every morning. I like to go back to my own practical experience; I think of the time when I was a boy in Scotland. What did we do there? In the small town in which I was raised there were only five banks. We had no exchange between the banks of checks at all. We met twice a week and exchanged notes—that is to say, the other four banks in the place picked up all the notes of the Royal Bank of Scotland—the bank I was in—and brought them to the place of meeting, and we collected all we could of the notes of the other four banks and took them to the same place where we exchanged notes, settling balances by draft on Edinburgh.

As a boy I went out daily with a lot of collections, drafts, etc., on the merchants in the town, presented them and got checks for them, which, before I went back to the bank I presented to the banks on which they were drawn and converted them into their bank notes. I did not think of it then, but I can see now, what these canny Scotch bankers were about. What these canny Scots were doing illustrates this subject. A Scotch bank discounts very few notes; for every time a note is discounted you have to go and buy Government-stamped

paper on which to write it, for there was a tax on making notes and of course the borrowers wanted to evade that tax, if possible. So the banks made an arrangement with those who wanted to borrow to do so on overdrafts, or, as it was called, on a cash credit. If a merchant wanted a line of credit with a bank he arranged for five thousand pounds or whatever it might be, of an over-draft, and he agreed to pay interest at the current rate on the daily overdrawn balance.

Then another thing is that they paid interest on deposits; that is, if you did keep a credit balance you got interest on it. Now then, with their loans in the shape of overdrafts and paying interest on credit balances, the Scotch bankers, among themselves, were not going to carry over night any of their customers' checks to be cleared the next day, as we do in this country. Why? Because as soon as the check was cashed it either increased the overdraft which was subject to the loaning rate of interest or it reduced the credit balance subject to the current rate on deposits. They, therefore, got all checks in as promptly as possible and paid them in their own circulating notes which cost them nothing but the cost of printing.

Similar conditions would prevail in this country if we had that kind of currency. There would be an effort on the part of the banks to secure the profit that there is in the circulation and the less you make the tax the keener will be the competition and the more active will be the redemption.

Mr. PRINCE. How much interest are the banks paying depositors now, say, in Illinois, generally?

Mr. FORGAN. Well, as a rule, national banks do not pay interest on active checking accounts kept by merchants or manufacturers. In some cases where the balances are large they arrange for a free balance and pay interest on the excess; but in very few cases in Illinois do they pay over 2 per cent, and, of course, on balances kept by banks through the country in reserve cities 2 per cent is uniformly paid.

Mr. PRINCE. What I am getting at is this. Take country banks outside of the city of Chicago—do they not pay on balances that run from six months to a year? Do they not pay their depositors on time deposits from 3 to 4 per cent?

Mr. FORGAN. Yes, they do; as high as 3 per cent, I believe.

Mr. PRINCE. If that is so, if banks can issue elastic currency at a rate of $2\frac{1}{2}$ per cent or lower, would that not materially affect the interest bankers would pay depositors?

Mr. FORGAN. I think not; I think it would help the banks to pay the public interest on time deposits. I know for a fact that at the present time the Scotch banks are paying 4 per cent on time deposits in consequence of the high rates prevailing for money, and their currency helps them to afford to do it. In Scotland they have a varying rate; they alter the rate about twice a month, if necessary, on certificates of deposits, and at the present time they are paying 4 per cent.

Mr. PRINCE. The point I desire to get clear—because I think it is better to thrash it out here than on the floor of the House—is this: You understand that these questions may be asked us on the floor of the House, and we ought to get them clear here in committee if we can.

If you are permitted to issue your own currency to the extent of 25 per cent at a $2\frac{1}{2}$ per cent tax, would not the banks prefer to issue

their own currency and pay to the Government a tax of $2\frac{1}{2}$ per cent on it rather than to take my money or a depositor's money and put that out into circulation and give to me or another depositor 3 or 4 per cent for the use of that money?

Mr. FORGAN. I think not; I do not think the two things would operate that way at all. I think your question will be answered by referring to a circular that I have here, gotten out by Fisk & Robinson, of New York; there is a table in it prepared to show the profit there is to the banks in the present bond-secured currency, and the profit there would be in a currency based on a $2\frac{1}{2}$ per cent tax.

That is, such a currency as we recommend. One of the most interesting things that this table brings out is that the lower the current rate for interest the higher the profit on our bond-secured currency. The very reverse being the case with such a credit currency as we recommend—the higher the rate of interest the more profit there would be in it for the banks. This table shows that with money ruling at 4 per cent the banks outside of reserve cities, with a 15 per cent reserve, would make \$283 on every \$25,000 of bond-secured currency under our present regulations. They would only make \$225 on a $2\frac{1}{2}$ per cent credit currency, the difference being \$58 in favor of the bond-secured currency.

On the same basis, when you come up to a 5 per cent market, you will find the profit on the bond-secured currency reduced to \$276, and the profit on the $2\frac{1}{2}$ per cent credit notes increased to \$437. So that on a 5 per cent market there is \$161 on every \$25,000 more profit on the $2\frac{1}{2}$ per cent credit money than there is on the bond-secured money such as we have now. When you come to a 6 per cent rate, the profit on the bond-secured money is reduced to \$269. On the credit notes of $2\frac{1}{2}$ per cent it is increased to \$650, a difference of \$381 on every \$25,000 in favor of the $2\frac{1}{2}$ per cent credit notes. I will not go any further with that; but that shows the way it works, and in that way—

The CHAIRMAN. If you will allow me, I think it would be well to put that in.

Mr. FORGAN. On a 7 per cent it is \$262 on bond-secured notes, and \$862 on the $2\frac{1}{2}$ per cent credit notes, a difference in favor of the $2\frac{1}{2}$ per cent credit notes of \$600. On an 8 per cent market the profit on the bond-secured notes is reduced to \$254, and the profit on the $2\frac{1}{2}$ per cent credit notes is increased to \$1,075, a difference of \$821 in favor of the credit notes. On a 9 per cent market the profit on the bond-secured notes is reduced to \$246, and on the credit notes is increased to \$1,287, a difference of \$1,041 in favor of the credit notes. On a 10 per cent market the profit on bond-secured notes is reduced to \$238, and on the $2\frac{1}{2}$ per cent tax credit notes it is increased to \$1,500, a difference of \$1,262 in favor of the $2\frac{1}{2}$ per cent credit notes.

Now I would like to state in this connection that I have given you the figures on the banks outside of reserve cities that have only to keep a 15 per cent reserve, but the table I refer to also brings out this feature, which is a very important one in regard to our recommendations, and one that I think should carry great weight, especially against the claim that it is in the interest of Wall street. The greatest profit in such a credit currency would be to the banks outside of the reserve cities, where they only have to keep a 15 per cent reserve. There would be less profit to the banks in reserve cities,

and the least profit of all to the banks in the central reserve cities, that is, New York, Chicago, and St. Louis.

Referring to Mr. Prince's question as to whether the banks would not put out their own notes at a $2\frac{1}{2}$ per cent tax rather than pay the same rate of interest on time deposits and as to how all this bears on that question, I answer the banks would not, for this reason: Time deposits are of a much more permanent nature than credit currency payable on demand and liable to come in for redemption in to-morrow's clearings and it is all a question of averages. A bank figuring prospective profits looks to the average amount that it can retain of deposits, taking into account their daily fluctuations. Banks make no money on the daily turn over of their deposits; but on the average amount they can retain and with some certainty use or loan out.

The law requires us in the central-reserve cities to keep 25 per cent of our deposits in actual cash in our vaults, and in the reserve cities 25 per cent, with the privilege of putting half of it in the central-reserve cities, and in the cities outside of reserve cities 15 per cent, with the privilege of putting two-thirds of it in the central reserve or reserve cities. It is the average amount that they can retain and use irrespective of the daily fluctuations on which they make their money. And the same principle applies to credit currency. It is the average amount that the bank can keep in circulation on which it must figure its profit. Now, how would this operate? An illustration of how it would operate would answer, I think, Mr. Prince's question better than any theory. It would operate in this way: The small bank in the country, where there is only one bank, can be taken as an example to start with.

Such a bank would pay all the checks drawn on it for cash by its customers—the farmers, the merchants, the manufacturers, and others in the community—in its own circulating notes, and I feel sure that as soon as the smaller country bankers become acquainted with the working of such a currency they will not attempt to ship their own notes beyond their own immediate neighborhood, because that would only result in trouble and expense to them. Experience would soon teach them to be satisfied with such circulation as they could control at home, which they would secure in the manner I have stated. Every opportunity such a bank would get to make a payment over its counter it would pay in its own notes. Suppose it paid a check for \$1,000 in such currency to some man who had an elevator and was buying grain and who paid it out to the farmers. The farmers before they went home would spend some of it among the merchants of the town.

These merchants are the kind of people that have bank accounts, and what they want of a bank is its deposit liability and not its circulating notes. So they take these circulating notes back to the bank and deposit them to their credit. The bank then for their convenience changes its note liability into a deposit liability, and when it again gets an opportunity to pay their checks it will change its deposit liability back to a note liability; and the thing goes on that way, just a change all the time from a circulating-note liability to a deposit liability and from a deposit liability to a circulating-note liability. The measure of that bank's ability to keep its notes circulating in any volume is the requirements of the surrounding community for a circulating medium and for pocket money, and that is all. The farmers will take it home, of course, and keep it for a while—and if it is

good why should they not? But when they want to come to town and spend it they will do so, and when they spend it, it will get into the hands of the merchant or dealer of some kind who does not need the circulating notes of the bank, but does need its deposit liability, because he wants the privilege of drawing his own check on it to pay his bills, at home or elsewhere.

Now, suppose the town grows apace, and a second bank starts in competition with the first. The same thing goes on, only they compete with each other for deposits and for the circulating-note privilege of the community, and in doing so they will have to periodically exchange notes with each other and settle balances. The one gets the notes of the other bank and presents them for redemption. The other bank says, "All right; I also have some of yours; we will square accounts, and whoever owes a balance after we have exchanged notes will pay the other in actual money—that is, in gold or legal tenders."

Now, go into a bigger community where there are a large number of banks with a clearing house organized and you find them doing exactly the same thing; they will pay out their own notes over their own counters every opportunity they get, but they must stand ready to redeem all of these notes which the public does not want within twenty-four hours at the clearing house, and all of them that are not so wanted will be daily presented and redeemed.

In that way you see it is entirely a different kind of service which the bank performs and an entirely different kind of customer that is served when a bank issues its credit notes from that served when it receives deposits. The one facility afforded the public does not interfere with the other, but they both work in unison, the one helping the other from an economic standpoint to reduce bank charges and to enable banks to offer interest on deposits; for to the extent they can pay their deposits in their own notes their average deposits are more valuable.

The best practical proof of this is that the highest rate of interest paid to bank customers is paid by banks having this privilege, such as in Canada, where the banks pay 3 per cent on time deposits, and have been doing so for the last seventy-five or a hundred years. And in Scotland at the present time they are paying 4 per cent interest on such deposits. They pay more interest on deposits than we do; and let me say that they do not charge as high rates of interest for loans as we do, and this in consequence of the privilege they have of credit-note issue without taxation. While our rates fluctuate, sometimes getting even lower than theirs and at other times much higher, they go along steadily on a lower average and they treat the public more fairly than we do, because they give the public what their money is worth all the time. If they put up the rate for discount they put up the rate correspondingly on deposits.

They are able to do so by reason of the fact that they have the privilege of furnishing the community with its circulating medium, which adjusts itself exactly to the requirements of trade by going out of existence when it is no longer required. I have not mentioned that before, and I think I may do so now. As an illustration, every note issued by the Bank of England when it comes in again for redemption is canceled and destroyed. The Bank of England notes are never issued a second time. That is the reason they are always

so clean. If you go into the Bank of England and present a check you get new notes right from the printing press, and if you deposit them again half an hour later they would go in at another window and would go to the fire and be burned. The Scotch can not afford that, you know—they are more economical; but they accomplish exactly the same thing without being so destructive and so wasteful. When a Canadian bank or a Scotch bank redeems its notes it takes them off its books and off its statements as a liability and puts them in its vaults for use again when it can get an opportunity to use them; but so far as any part of the circulating medium of the country is concerned, they are as absolutely out of existence as the Bank of England notes that are burned, because they do not count for anything; they are lying there as so much waste paper until they can be used again. I think I have answered Mr. Prince's question.

This is all in the interest of the public as much as of the banks, but it is awfully hard to get the public to understand where their real interests lie. It is the most extraordinary thing to me that the public should want bank currency to be taxed at a high rate. I can not understand it, because it is in the interest of the poorest man in the community that the banks should have this privilege and have it cheap, because it is the privilege that gives them the opportunity to serve the public at the lowest cost in the most legitimate way. If the banks have to pay this high tax they must get it out of the public; there is no other place for them to get it. Everybody knows that charges in every line of business are based on the expenses of the business plus a reasonable profit, and if this high tax becomes a part of banking expenses it must ultimately fall upon the borrowing community, and they would have to pay it.

I will wind up my remarks now by saying that in my opinion if, under Mr. Chase as Secretary of the Treasury, the necessities of the country for carrying on the civil war had not brought out his brilliant idea of providing a market for Government bonds by creating a national banking system based upon them, but if our banking system had been allowed to develop in a natural way without such interference, we would have to-day an elastic currency of the kind we now want, and instead of having as we now have the finger of ridicule pointed at us by every other financial power in the world—especially the strong financial powers—for our fluctuating rates of money and the absurdly high rates that prevail at present in Wall street, we would be the strongest financial power in the world, and the rates of interest charged by the banks in this country, with the wealth we have, would be as low as any if not the lowest in the world, and in all probability they would be the steadiest in the world, and they would be practically the same all over the country; that is what could be accomplished by an elastic currency and a proper banking system such as with our enormous wealth we should have.

Mr. SHARTEL. Have the countries you have mentioned—Germany, Canada, and Scotland—any other currency than this credit currency; is that their main circulating medium?

Mr. FORGAN. Germany and Scotland have no other as far as I remember; in both countries gold circulates quite freely.

Mr. SHARTEL. I meant the currency.

Mr. FORGAN. There is no other currency so far as I remember. In Canada the government issues a note which is very much like our

own greenback, but it is confined to the small denominations, ones and twos, and to thousand-dollar bills, which are only current among the banks, being held as part of the banks' reserves, each bank having to retain a certain amount of them in its cash reserves. The banks pay their clearing-house balances in them, and the government issues them. They are also protected like ours by a gold reserve in the hands of the government.

The CHAIRMAN. If you will allow me to supplement that statement, that amount is limited in Canada (and was created during the same greenback period we had here) to \$20,000,000.

Mr. FORGAN. Yes.

Mr. SHARTEL. What is the limit in Scotland and Canada to the issuing of this credit currency?

Mr. FORGAN. The banks have the privilege of issuing to the full amount of their capital. I am not sure what the penalty is for the Scotch banks if they exceed the limit, but in Canada it is something along this line: That if a bank exceeds the limit which is the full amount of its capital by an amount from \$1,000 to \$5,000 it is fined a thousand dollars a day for the time it has it out; if it is from \$5,000 to \$10,000 it is fined \$2,000; if it is from \$10,000 to \$15,000 it is fined \$3,000, and it goes along on some such basis until it gets up to \$500,000.

If it exceeds \$500,000 the fine is \$100,000. So there is a very peremptory limitation put upon it in Canada. There are one or two banks in Canada that have occasionally gotten up to the limit. It so happens the bank I used to be connected with there, the Bank of Nova Scotia, had to pay a fine once or twice. That, however, has been since I left it. [Laughter.]

Mr. SHARTEL. One more question in regard to the putting out of this money. What, in your opinion, Mr. Forgan, would be the result of a law of this kind, as to the amount that would be put out; do you think the banks would avail themselves to the full limit of this credit currency?

Mr. FORGAN. I think that comes into the experimental feature of the proposition. That is something that I would not like to give a definite answer to. Of course from what has been shown by this table of the profit in it, they certainly would use it when current rates would permit.

Mr. SHARTEL. You have made the statement that each bank would be anxious to put out its own notes under this law and force in the notes of other banks.

Mr. FORGAN. Yes.

Mr. SHARTEL. Would not that have a tendency to cause the putting out of practically the full limit of the 25 per cent if they could get it out?

Mr. FORGAN. If they could get it out, and in all probability they would be able to get it out when the demand for it was the greatest, in the fall of the year, when there is an opportunity to use it, there would be more inducement for them to issue it at that time, because there would be greater profit in it; it would come out naturally as the interest rates went up, and I think that very likely in the fall of the year the banks might be able to avail themselves of it to the full limit of the 2½ per cent privilege, or nearly so.

Mr. SHARTEL. Referring to the redemption you have spoken of

and the cancellation taking place on the return of those notes to the banks, if the banks were making the effort to keep them out, and it was profitable to keep them out, of course they would immediately reissue those notes and put them out, so if they once got out they would be very likely to stay in circulation, would they not?

Mr. FORGAN. They would only stay in circulation in the hands of a community that would require that kind of a bank liability. Every time those notes came into the hands of a merchant, or anyone who kept a bank account, they would go into the bank that that person did business with; they would be immediately banked, and as soon as they were banked, with proper facilities existing for redeeming them the banks would present them for redemption to each other the same as they do checks. They would all put the notes of other banks into the clearings each day for redemption, and so the redemption would be active and effective in putting out of existence such of them as were not needed by the communities.

In your own last report to Congress, I mean this committee's report, attention is called to the fact that the average time that a bank note stays out in Scotland is eighteen days—I believe it is eighteen days.

Mr. HEPBURN. Yes; eighteen days.

The CHAIRMAN. I will give you the times if you like. Scotland, eighteen days; Canada, thirty days. Seven hundred and thirty days in this country.

Mr. FORGAN. The average life of a credit note is therefore in bold contrast with that of our present national-bank note. The note of the Scotch banking system remains out eighteen days, the note of the Canadian banking system remains out thirty days; New England, Suffolk banking system, the note remained out forty-five days; the note of the national banking system, our present system, remains out seven hundred and thirty days, showing the activity of redemption that takes place with a credit currency, and when money was easy. There being no inducement for the banks to push it out, of course they would not do it; and if they did do it, if they did try to force it out, it would come back on them, so that it would be quickly put out of existence anyway. It would be regulated by the requirements of trade. It would not stay out a day longer than it is wanted.

Mr. SHARTEL. Do you think it would have any different effect in a country like this, where we have so much other currency, from what the effect is in these other countries, where it is the only currency?

Mr. FORGAN. Certainly; it would not work as well here as in these other countries—that is, having Government notes and the bond-secured currency both in a way underlying it, there is not the same field for it; but we are not giving anything like the same privilege: we are confining the privilege to 25 per cent instead of a hundred per cent of the bank capital, and it is only a step—but still it is a step in the right direction.

The CHAIRMAN. Do you mean that it would relatively work as well?

Mr. FORGAN. Relatively, yes; I think the percentage of redemption and fluctuation in volume outstanding would be as great. In fact, I think it would pretty nearly go out of existence altogether in the spring of the year, so far as the central reserve cities are concerned, because we would use the other money, the Government notes, and

the bond-secured bank notes. We have paid for the secured bank notes, the investment of the funds being already made in the Government bonds—of course you understand that. But let me state it again: That the little that the banks can make on their bond-secured currency is made on the investment in the Government bonds; the asset in a bank's statement which offsets its liability for its circulating bank notes is the Government bond, and the limit of the income on that investment is 2 per cent, because that is all the Government bond pays. Take this credit currency; the offset for the liability on it is the general assets of the bank, just the same as it is for its other liabilities; when it comes into existence as a liability the bank requires some asset for which it pays it out—it does not pay it out for nothing. If you go into the bank and discount a note for a thousand dollars the operation would naturally be this: The thousand dollars would be placed to your credit in the form of a deposit liability of the bank. In other words, you have given your three months' obligation to the bank and the bank has given its demand obligation to you in the shape of a deposit liability. Now, the customer that has discounted that thousand dollar note draws a check against that deposit account and the bank pays out its circulating notes in payment of the check. The asset that it acquired for these notes, therefore, was the customer's three months' note.

It can not get that note paid until it matures, but the notes which it pays out are payable on demand, and such notes get into circulation, and the profit it makes on them depends on the length of time they stay out. They might come back the next morning, but, as we have heard the average in Canada is thirty days, they stay out on the average thirty days; and in this country it would probably be about the same length of time.

Mr. SHARTEL. This may seem in the nature of asking for an expert opinion, but I know you have had a very wide experience and we would like to have your opinion on it, or at least I would. To what extent, in your judgment, would this law inflate the currency of the country?

Mr. FORGAN. I have been asked by several members of the Commission what the word inflation means, and it is pretty hard to define it—

Mr. SHARTEL. Let us use the word "increase," then.

The CHAIRMAN. Excuse me for interrupting you, but your question with the amendment I do not think is quite clear. Will you please repeat it?

Mr. SHARTEL. I will ask you to what extent, in your judgment, would this law permanently increase the currency of the country?

Mr. FORGAN. Increase the volume of the currency?

Mr. SHARTEL. Permanently increase the volume of the currency.

Mr. FORGAN. Increase the volume of the currency?

currency to the extent that the banks could avail themselves of it, and at certain seasons of the year, as I stated, they probably would be able to use the entire amount of it. I have not the figures, but it is some \$200,000,000 in round numbers, and at other seasons of the year it would, in my judgment, run down to a very modest sum.

Mr. WALDO. Would it not practically disappear?

Mr. FORGAN. Yes, in consequence of the other currency we have. If we did not have the other currency of course we would have to

keep out a steady volume of it, because a certain amount of currency is needed all the time; people must have money in their pockets.

The CHAIRMAN. Will you please allow me to ask a question which I think bears directly on this?

Mr. FORGAN. Certainly.

The CHAIRMAN. You say an increase of the volume of the currency, but through it do you increase the volume of the credit of the country?

Mr. FORGAN. Not at all. Of course a bank might directly pay out its notes when it discounts a note for a customer, but that is not the usual way. From 95 per cent to 98 per cent of all the transactions that the banks would have in these credit notes would be to convert their existing liability for deposits into a demand liability on these notes. They would diminish the one as they increased the other, so that the credits of the banks would continue practically the same.

The CHAIRMAN. Now, will you let me ask you one more question logically following from that? Does it make any difference to this country whether the volume of credit is in the form of book accounts subject to checks or credit notes?

Mr. FORGAN. It makes this difference: That in certain seasons of the year in certain localities the check is of no use for the requirements of commerce, but the bank note is of use.

The CHAIRMAN. But the fact that we convert two hundred million dollars bank-book credits into two hundred million dollars bank notes has not resulted in an inflation of one cent?

Mr. FORGAN. No; it does not inflate anything at all if we maintain the same reserves on both kinds of liability.

Mr. McCREARY. Coming back to the Canadian system, what is the difference between the maximum and minimum amount in circulation in Canada?

Mr. FORGAN. It is in your report, is it not, somewhere about 30 per cent; and the Bank of Montreal has never been able to use its privilege beyond—I think it is 80 per cent of its privilege; that is to say, the largest bank in the country has never been able to use its privilege—never been able to get its notes out beyond 80 per cent of the limit?

Mr. McCREARY. At present, to meet the emergency conditions, the clearing-house certificates are issued and they are called in and redeemed as soon as the emergency is over. Would not these credit notes do away with such a necessity and give stability to the banks and avoid panics by a currency adjusted to supply and demand?

Mr. FORGAN. Yes, sir; and I was going to explain, from my point of view, it would accomplish just that very thing.

Mr. McCREARY. It is practiced now in case of panics, and the question is to avoid the clearing-house certificates, which are only due bills between clearing-house members, in order to give an abundance of credit.

Mr. FORGAN. Yes, sir.

Mr. McCREARY. Then this would supersede all that by giving a stable condition?

Mr. FORGAN. Yes; I think so.

Mr. McCREARY. Based on supply and demand?

Mr. FORGAN. I think so; yes.

Mr. HAYES. I would like to ask, or would like to suggest to Mr.

Forgan, so as to have it in the record, that our report of last session provided for making the note holder a preferred creditor of the bank, giving him a lien on the assets of the bank for the payment of his note.

Mr. FORGAN. A prior lien?

Mr. HAYES. Yes, and your commission has omitted that provision and I would like to hear you briefly on that subject.

Mr. FORGAN. I think that some of the members of the commission who voted for that feature of it—inasmuch as it was a divided vote and was carried by a majority against the prior-lien feature—should be heard, that it would be only fair for you to hear their views, the views of the gentlemen who advocated that.

Mr. HAYES. But personally?

Mr. FORGAN. Personally I prefer the prior lien. I am not talking for the commission now. You asked me a personal question. When I talk for the commission I talk on their recommendations; but the commission has not converted me to believe that it should not be a prior lien; but a majority are opposed to it, and I find that a majority of the banks of the country seem to be opposed to it. I would be glad to give the two sides to the question.

Mr. WEEKS. Mr. Forgan has spoken of shipping money to the interior. What kind of money did you ship, for instance, the 1st of October, when you sent out three and one-half million dollars in seven days?

Mr. FORGAN. It was mixed currency—Government notes and bank notes mixed.

Mr. WEEKS. If you had bank notes you would have shipped them, would you not?

Mr. FORGAN. Yes. Right there, a thing which might be of interest to the committee is that just immediately after that, along about the middle of October, I was in New York when Mr. Shaw announced that in order to help the situation he would release \$18,000,000 of Government deposits from the Government-bond security and take other bonds for them, thus releasing \$18,000,000 of Government bonds for the purpose of taking out additional circulation against them. I was able, in the First National Bank, to avail myself of that privilege to the extent of \$450,000, which I did before I left Chicago.

When I got to New York I found two of our correspondents there were taking out a large amount of circulation under that privilege. It immediately occurred to me that it would be very desirable to get all I could to help the situation out West. I immediately called upon them and I arranged for \$2,000,000—for \$1,000,000 from each, which was about one-half of what each of them was taking out—and I had that currency shipped to Chicago for our use. That all disappeared within two or three days after we got it; it was all shipped into the interior, but to that extent it helped us to meet the demands of the interior. I may as well mention the banks from which we got the two million dollars; they were the National City Bank and the First National Bank of New York; we got about a million dollars from each and circulated their notes in that way.

Mr. WEEKS. I was going to add to that, if he had that privilege of using the currency, would not the first money he shipped have been this currency and then national-bank notes, keeping his reserve money in his vault?

Mr. FORGAN. I would not do that. From my knowledge of the working of this credit currency as I tried to illustrate it, taking the community that had only its one bank, I am very much impressed that the benefit to the bank, and all the banks, will be to secure the circulation through their own customers in their own immediate communities and not let their notes drift away from their own locality, because as soon as they drift away they will be likely to come back when they are not expected; but if they get it flowing out and in every day in a continuous outflow and inflow they will maintain an average and they will find out what that average is by supplying their own communities; they will find out what the requirements of their own communities are, and it will be a steady thing for them, the redemption going on regularly every day of such of the outstanding notes as are not needed by the community. Every bank in every community will ship out all the notes of banks in other communities that come into its hands so as to keep the local circulation for itself.

I have told the Commission, and I have told the story before, that when I did business in Nova Scotia there was an American who came there and went into the lumber business and did business in a part of Nova Scotia where when the lumber was cut off there was nothing but rocks left—the land was worth nothing—and when he got through cutting off the timber his business was at a standstill. There had been a local bank organized, called the Bank of Liverpool, and it suffered, of course, in connection with that condition of affairs. He conceived the idea of starting another bank to get more credit and to furnish more circulating medium, and he did start a bank, calling it the Bank of Acadia. This gentleman had been drawing kiting drafts on Boston through the Bank of Liverpool for round amounts, and he had always managed somehow to get the money to Boston to meet the drafts, making a sort of endless chain of operations, and in order to continue them he started his other bank.

He had so little knowledge of the true meaning of bank currency and the working of it that he conceived the idea of shipping \$50,000 of this Bank of Acadia's notes to Boston to meet one of his drafts. He did it. They went to Boston and were sold at a discount in the Boston market, some Boston broker buying them. They were then shipped to Halifax. The only communication at that time between Halifax and Liverpool was by stagecoach. The bank sent a couple of clerks with this money down to Liverpool to present it for redemption. At that time banks did not have redemption agencies in the different provinces as they must have now; they only redeemed their notes at their own counters. So they sent these bank notes down and presented them, and Mr. Cutler, who was the president of the bank, not having any money to redeem them with had to put up his shutters. That bank lasted just the length of time it took to ship the money to Boston and get it back again to Liverpool.

Such foolish things may be tried. But it will be found they will not work.

Mr. GILLESPIE. You made a statement, if I recollect correctly, that the banks do use the present bank-note currency as part of their reserves.

Mr. FORGAN. Unfortunately, through the country they do—not in New York or in the other large cities, however; national banks do not do it in large cities.

The CHAIRMAN. You mean the national banks?

Mr. GILLESPIE. Yes, sir. I think that is the statement that has been made.

Mr. FORGAN. They can not legally do it—

Mr. GILLESPIE. I understand that—

Mr. FORGAN. But it was asserted in the presence of this commission at one of its meetings, and in the presence of the Comptroller of the Currency, that to a certain extent it was winked at by the Department, and I understand it is winked at in this way: The banks in the country do not separate their bank notes from the Government notes. They keep their bank notes and the Government notes all together, and the bank examiners do not separately count them. They put them in bundles, and when the bank examiner comes around they agree that a certain percentage of them is legal tender and a certain percentage is bank notes. When they figure these percentages they figure it pretty liberally in favor of the bank; and they probably would find, if they went into it, that there was a much larger percentage of bank notes in the bundle than they figured.

The CHAIRMAN. Contrary to law?

Mr. FORGAN. Yes, sir.

Mr. GILLESPIE. Is it not your opinion that there would be a great deal more elasticity to the present national bank-note currency if they would not use it at all for reserve but sent it back for redemption as the law requires?

Mr. FORGAN. Yes, sir; it would help, but the trouble with that is this: That the redemption that goes on now is altogether through the Government, and there is only one place where it is redeemed and that is in Washington. It takes just one week for banks in Chicago to get the notes of other banks redeemed; they send them to Washington, and in one week they get back a check on the subtreasury for the amount.

In New York, of course, it can be done more promptly, because New York is nearer to Washington. But in San Francisco it must take twice as long as it does for Chicago. When the redemption takes place it is out of the 5 per cent fund in the hands of the Government, and the bank whose notes are redeemed is notified immediately that so many of its notes are redeemed and it has to make its 5 per cent good, and then it gets its notes again, and as soon as it gets them, while it can not of course count them as legal reserve, it feels that it has got that much money on hand that it has got to do something with, because it has paid for them, paid for them when it bought the Government bonds. Now, with this other currency, when it gets into its hands it has not paid anything for it; it has no offsetting asset against it; it holds just so much paper.

You can not say that about our present currency, because you have paid for it, you have invested it, you have invested the money already, you have got your Government bonds, and you can not get away from the idea that you have paid for it by buying the bonds. You see it is an entirely different attitude of mind that the banker must take in looking at the two kinds of currency. When he gets back a credit note he is getting back his note, because he has paid it the same as any business gentleman in this committee. When he gets back his note from his bank he says, "Thank God, that is paid." The way we do

is like the country merchant who, when he gives his note to the city merchant in settlement of a bill, says "Thank God, that bill is paid." That is what we are doing all the time. We are thanking God we have paid our debts when we have simply given our notes for them.

Now, with this credit currency, when we redeem it we have actually paid our debt and our notes no longer exist.

Mr. GILLESPIE. So far as a time requirement is concerned, that could be easily remedied, could it not, by providing for more rapid redemption, just as you do in this measure, if that was the only objection?

Mr. FORGAN. If it was only to provide active redemption, yes; but when our present currency gets into the hands of the bank that issued it—

Mr. GILLESPIE. I understand that is the inherent defect in the currency itself.

Mr. FORGAN. Yes; there would be much more active redemption, even of our bond-secured currency, if adequate redemption facilities were provided.

Mr. GILLESPIE. But the point you make of time in redeeming could be remedied by providing more places for redemption?

Mr. FORGAN. Certainly, to a very considerable extent.

Mr. GILLESPIE. Just as you do in this bill for this currency?

Mr. FORGAN. Yes. But the bank, when it has once redeemed its secured notes through the 5-per-cent fund, has depleted its reserves to the extent of the redemption and it still has the notes on hand, against which it has invested its good money in the shape of the Government bonds purchased. There is a positive loss on the transaction unless it can use the notes as money and keep them in circulation.

Mr. GILLESPIE. It has not depleted its reserve unless this money is used for reserve.

Mr. FORGAN. It depletes its reserve every time it redeems its notes; as its notes come in it has to take them up in legal-tender reserve money.

Mr. GILLESPIE. When this currency comes into one of these redemption banks—and they are just agencies selected, appointed by the issuing banks—is that currency treated as canceled then?

Mr. FORGAN. Yes; it should be—

Mr. GILLESPIE. That is not the question.

Mr. FORGAN. We should recommend it, because the redemption agent charges it up against the issuing bank's account, thus charging the bank with the redemption of it. Then it ships it back to the bank of issue as so much—well, call it waste paper. Now, when the Government ships back our present currency it does not ship it back as so much waste paper; it ships it back as notes, the proceeds of which the bank has already invested in Government bonds.

Mr. GILLESPIE. Now, another question. Your plan here discourages the issuance of any more bond-secured currency by providing 40 per cent of 62½ per cent, which is 25 per cent of the capital. If this currency is more profitable than bond-secured currency, a bank will not issue any more than the 62½ per cent of the bond-secured currency?

Mr. FORGAN. No.

Mr. GILLESPIE. The purpose, then, is to confine the bond-secured

currency to the present amount, at least; not let it go any higher than that?

Mr. FORGAN. It would naturally go higher, though, if the bank capital increased and the banking business of the country increased.

Mr. GILLESPIE. An increase in volume, but not—

Mr. FORGAN. For each new bank it would increase so much.

Mr. GILLESPIE. Yes.

Mr. FORGAN. And of course we do not know what the Government may do in regard to redeeming or issuing its bonds in the future.

Mr. GILLESPIE. Now, with reference to Mr. Prince's question, you answered that by stating that the banks of Scotland can issue to the full amount of their capital; I understand that. But, practically, it is not based on cash received by the banks, as in England, or upon a note with collateral, or a note with two or more signatures, as in France. Does not the issue of notes by the Bank of Scotland have something to do with the money received and deposited in the bank?

Mr. FORGAN. Well, the bank's assets which it receives for its liabilities (of course when a liability is created by a bank it acquires an asset for it whether it is a note liability or a deposit liability) and the same general assets are held by the banks to secure their notes as to secure their deposit liability, with this exception—that the notes are made a prior lien on all the assets in Canada and in Scotland.

Mr. GILLESPIE. In practice you would go to the Bank of Scotland, and if you go there and deposit money they pay interest on that; now, does that afford a direct basis for the issuance of notes by that bank?

Mr. FORGAN. Yes. When the deposit is withdrawn by check the bank may get an opportunity of issuing its notes for it.

Mr. GILLESPIE. Under your system here of issuance of notes, they have no relation to the deposit of money in the bank?

Mr. FORGAN. Oh, yes; exactly the same as in Scotland, because every time the bank issues its note it will get an offsetting asset for it, either in the shape of gold or current money or a customer's note or obligation or some kind of an asset such as banks have; it will not give its notes out for nothing—it will give them out for actual assets, you know. Every time it creates a liability it at the same time acquires an asset against that liability.

Mr. GILLESPIE. But it need not be a cash asset?

Mr. FORGAN. No; any more than in Scotland it is not always a cash asset.

Mr. GILLESPIE. What is your system of issuing the notes there? I understand in England it is based on the cash receipts received; they have a bond-secured 16½ million pounds, they can go to that limit; but ordinarily you can go to England with cash and get notes; but you can not get it on anything else.

Mr. FORGAN. No.

Mr. GILLESPIE. What is the system of Scotland, is it the same?

Mr. FORGAN. No.

Mr. GILLESPIE. What is the difference?

Mr. FORGAN. All the banks have the privilege of note issue against their assets in Scotland, and they take every opportunity that they can get to pay out their own notes, and the opportunity is almost always in the cashing of checks on themselves drawn against deposits, and

in that way they keep their notes out to the extent the public will use them; and such as the public will not use come in each morning for redemption. I explained when I was talking before that in the banking system in Scotland they did very little in the way of discounting notes. They give cash credits. Whenever a check is drawn against these cash credits that their customers get they pay out their own notes and the customer takes them out and circulates them, and the bank stands ready to redeem them when they are presented. The average time they stay out in Scotland is eighteen days.

Mr. WEEKS. I forgot, when I was asking questions, something that I wanted to suggest to Mr. Forgan. It is the result of Mr. Prince's questions. He seemed to be fearful that the issuing of this currency would prevent banks paying customers as high a rate of interest as they had been doing in the past. Is it not a fact that this currency will cost a bank more than 4 per cent if it issues currency taxed to 2½ per cent?

Mr. FORGAN. Yes; that is another way of stating what I showed in that table—that the banks would not have any profit in issuing it until money gets to 4½ per cent.

Mr. WEEKS. One other question. Mr. Forgan has spoken of winking at the counting of national-bank notes as reserve. I presume he refers to the comptroller's department doing that. Is not that winking confined to this mixture of money which he has described, and which is simply estimated rather than taking the trouble to count the amount of actual reserve money and national-bank notes which they may have at the time?

Mr. FORGAN. Yes, it is; and, Mr. Weeks, I was very much surprised, not being familiar with the methods of country banks, never having been inside a country bank, you might say, and not knowing what is done in that connection. I know that in Chicago the bank examiners that examine the national banks there would not stand any such thing as winking at that for a moment. We separate our notes, and, I think, in all the cities the same thing is done; I suppose the same thing is done in Boston. But in this Commission, I think, Mr. Vanderlip brought it out and made a statement that the banks of the country districts were actually counting these notes as reserves, and referred to the practice as one of the greatest troubles of our present system.

Mr. HEPBURN. Outside of reserve cities?

Mr. FORGAN. Outside of reserve cities. But, you know, there are a good many bankers—and prominent bankers, too—who have advocated that our present currency should be counted as reserve. It shows how far from correct principles we can stray.

Mr. WEEKS. I did not want to leave the impression that the Administration, through the Comptroller's department, was winking at something other than simply an estimate.

Mr. FORGAN. I understand that.

Mr. WEEKS. And that that estimate does not obtain in large cities.

Mr. FORGAN. That is true; it does not. No such thing occurs in Chicago, I am sure.

Mr. POWERS. Speaking of the system in Scotland, do they have as many various systems of banking as we do here—that is, trust companies and savings banks, and national banks—or do they just have one system?

Mr. FORGAN. Just one system there.

Mr. POWERS. I ask that in reference to this question of prior lien upon assets. Do you think that under the provisions that are made in the suggested bill the 5 per cent that is to be deposited as a security, taking into consideration the history of the past, that that would not be ample security for the assets currency for any failure that might take place?

Mr. FORGAN. I think it would be more than ample, Mr. Powers.

Mr. POWERS. If you would place this credit currency—if I may call it that—as a prior lien, what and how would it affect the business of the national banks as a competitor with the trust companies and savings banks, for deposits, the trust companies and savings banks being able to point out the fact to the depositors that first of all a certain portion of the assets in case of failure is to be wiped out before they can be considered, while that is not true with the other system of banking?

Mr. FORGAN. I am afraid that a majority of the national banks would be afraid of the competition of the State banks in that connection. In my own opinion—which is not the opinion of the majority of the commission—the national banks could afford, in order to get a privilege of low-tax currency, to stand that competition; and my own belief is that after the banks and the public got accustomed to it, that while the State banks would undoubtedly continue to keep it stirred up before the minds of the public, it would soon die out and be a matter of too little significance to pay attention to.

Mr. POWERS. Might that not be true in the large cities like Chicago and New York, and yet not be true in a little town like Houlton, where we have a trust company and a national bank side by side?

Mr. FORGAN. I think in a small community it would be a matter of keen competition.

Mr. POWERS. For that reason I have been opposed to the prior lien. I believe it would tend to injure the national bank in the country, at least in getting its fair share of deposits.

Mr. FORGAN. Perhaps it would.

Mr. HERRICK. I being one of the members of the committee who voted against the prior lien, and perhaps somewhat in the light of a depositor and representing an institution that deposits several million dollars in the national banks, that idea of the governor's, it seems to me, would occur in the minds of the public, and, as Mr. Forgan has said here, the 5 per cent security fund, according to figures, according to what experience has shown, is ample to meet the requirements of every failed bank. That being ample, why should not the note holder come in as a creditor on equal terms with other creditors? This discussion that took place for part of one day in the meeting of our commission resulted, as Mr. Forgan said, in the majority voting not to secure the note holder by giving him a prior lien ahead of other creditors. Having the different kinds of banking we have, looking also to the country banks, I am firmly convinced that it weakens the system to make a preferred creditor of the note holder.

Mr. FORGAN. It shows the breadth of view of the members of this commission that all the State and private bankers on it voted as Mr. Herrick did against the prior-lien idea. You would suppose they might be against the national banks and that they would be anxious

to get it in so as to knife us, but it shows the breadth of these gentlemen's views that they voted the other way.

Mr. POWERS. I suppose you noticed—I will not say the recommendation, but the suggestion in the last report of the Secretary of the Treasury—about a contraction of the present currency during certain months by increasing the amount of reserve every fifteen days.

Mr. FORGAN. Yes; I saw it.

Mr. POWERS. What do you think of that suggestion of getting more currency for an emergency, if I may use the term?

Mr. FORGAN. It is a purely theoretical suggestion, such as a man who feels his power and wants to exercise more power might make, but if he had any practical experience in or knowledge of the working of the banking business he would see at once that it would not do at all.

Mr. POWERS. I can see how it would not do, but I thought you might explain it.

Mr. McCORD. There is one question about the country banks that I would like to answer.

The CHAIRMAN. You will be given an opportunity a little later.

Mr. WALDO. Would not the result of this credit currency be to leave out, on the general average, some considerable portion of the credit currency which would in effect be an inflation, a permanent inflation?

Mr. FORGAN. I would hope that it would mean that a certain amount of it would stay out, and as a matter of fact a certain amount of it would stay out; but I do not see how it could be counted an inflation in any sense of the word, because you can only inflate a thing by having it in existence when it is not needed. Now, this kind of currency can not remain in existence for one hour if it is not needed; it will only remain in existence and circulation to the extent that it is wanted. Whenever some man does not want to carry it around in his pocket, or some woman does not want to stick it in her stocking, or some other fellow does not want to lock it up in his safe-deposit box, it will come in the next morning through the clearing house and be redeemed. Now, it is in actual use and is wanted if it is used in that way by any of these individuals, and it is not inflation; they will not keep it if they do not have use for it.

The CHAIRMAN. I want to say another word. Is there any inflation when there is a mere conversion of one form of credit into another form of credit?

Mr. FORGAN. No, there is not any inflation in such a conversion.

The CHAIRMAN. Is there any other question to be addressed to Mr. Forgan? If not, I would like to ask Mr. Wexler, who comes from New Orleans, to express himself with regard to the first-lien proposition.

**STATEMENT OF MR. SOL WEXLER, VICE-PRESIDENT OF THE
WHITNEY CENTRAL NATIONAL BANK OF NEW ORLEANS.**

The question of the first lien on the assets probably took up more time in our discussion than any other one part of the recommendations we have made here, for the reason that it was observed that in Canada and other countries, and in fact in our own national-bank

currency at the present time, there is a first lien on the assets of the bank in favor of the holder of the notes, and in our national currency there is a first lien in favor of the Government; and it was admitted that if we only had one system of banking, namely, the national-banking system, it would be advisable to have the notes operate as a first lien on the assets of the bank.

But in view of the fact that we have two other systems of banking, namely, the savings banks and the trust companies, the point would be used to a great extent by State bankers and trust-company managers. They would say to their depositors that if they put their money in such a national bank the notes of which bank that were in circulation would be a prior lien against the assets of that bank. That is the argument that would be used, and it might be found that the deposits of national banks would shrink in consequence of such a measure; while, on the other hand, a distinct object of this bill is to endeavor to make it of some interest to national banks in order to bring about the conversion of more State banks to the national-banking system and the organization of State banks as national banks rather than State banks, and so we may ultimately have one general system of banking in this country governed by one law.

It was decided by the commission that it would not be advisable to have those notes as a prior lien on the assets, particularly as the statistics of the national-bank system, as it has been in effect for forty years, show a tax of one-tenth of 1 per cent would have been ample to have redeemed the notes of failed banks, while we have fixed it at $2\frac{1}{2}$ per cent. If a thing is perfect, it is as good as it can be; it can be no better than perfect. If one-tenth of 1 per cent has been ample during the last forty years to redeem the notes of failed banks, why should not a tax of one-tenth of 1 per cent be sufficient for the next forty years, when we are likely to have a greater degree of prosperity than we have had during the last forty years, a portion of which time was immediately after the vicissitudes of the civil war.

Further than this, the fact that the tax of 5 per cent is constantly in the hands of the Government for the redemption of the notes of failed banks, and that as soon as a bank closes its doors the Government assumes to pay these notes, and the fund being more than sufficient, and the fact that as long as the bank's doors are open they must redeem their own notes, shows that these notes are absolutely good and do not need either the segregation of assets or a prior lien. Based on that the committee decided against the prior lien.

While I have not been asked to say anything further—

The CHAIRMAN. We will be glad to have you cover every point you desire to speak on.

Mr. WEXLER. The point that occurs to me particularly is this. I represent an agricultural section of the country, a section which probably next to Chicago ships out more currency than any other commercial center, a section that has enormous crops of sugar cane and cotton and rice to handle at one time, and we find it impossible to get hold of enough currency to send out to answer the purposes of money. Our clearing house has unanimously adopted a resolution approving of the principles of this bill in every detail, and without dissent has requested of the commission that every effort be used to pass the bill during the present session of Congress. We find in our

own institution, which is small compared to the large banks in Chicago and New York, but large for our section of the country, that we are shipping from \$200,000 to \$250,000 of currency a day.

In the natural course of our business our exchange goes to New York; we are some 1,400 miles from New York, and the difficulty of getting the currency back from New York in time to pass it out to fill the demand we have for it for shipment to the country often inconveniences us to a great extent. In other words, in our immediate section there is not sufficient circulating medium to answer our purposes. People come to us and absolutely clamor for currency which it is absolutely impossible to supply them with at the time except in denominations of fifty and one hundred dollar bills, which might as well be tons of iron so far as they help out the manufacturer or merchant who wants to pay off his employees, who needs bills in small denominations to take care of his pay roll.

It is therefore absolutely necessary to have a circulating medium which is sound and which will answer every purpose our present circulating medium answers; it is absolutely necessary that such a medium be provided, and we think in this bill we have provided such a one, and one that is not an experiment, because in Scotland and Canada this system has worked, and we must remember that we are only divided from Canada by an imaginary line, and if it works there it ought to work here; the conditions prevailing there in the harvest season are identical with the conditions here in the harvest season, and what has worked there so admirably should work equally as well here. As an example, call money fluctuated last year between 4 per cent and 120 per cent. During the same period the fluctuation in Canada was between $3\frac{1}{2}$ and $4\frac{1}{2}$ per cent.

In Vienna, the commercial center of the Austria-Hungarian Empire, the fluctuation was between 3 per cent and 4 per cent and in Scotland the fluctuation was about the same. It is therefore evident that the fault must be in our system, the fault must be in a system that makes it possible for money to fluctuate between 4 per cent and 120 per cent in one year. I think some system should be devised under which any person engaged in a legitimate mercantile or agricultural or manufacturing enterprise would be able to obtain reasonable amounts of money, proportionate to his requirements and what he is justified to have, at reasonable rates of interest, that a man should be permitted to engage in business in this country upon security with reasonable certainty that he can get money at a reasonable rate of interest, and not with the uncertainty that exists to-day as to whether he is going to have to pay 4 per cent or 25 per cent for the money.

That is found to be an embargo on commerce, it is bound to place us in a position of ridicule before the financiers particularly, it is bound to prevent our being a great commercial nation, because no nation can become great unless its finances are absolutely stable.

It has been estimated that the amount of currency required during the crop-moving season is between \$150,000,000 and \$200,000,000. It is probable that \$150,000,000 is nearer the correct figure. The withdrawal of this \$150,000,000 just at the period when the demand for credits comes along has the effect of contracting loans just at the period when loans are most desired. Admitting this to be a fact and applying the ratio between the contraction and expan-

sion in Canada, which is said to be 30 per cent, to our present national currency of, say, \$525,000,000, would give us an expansion and contraction of about \$150,000,000 to \$175,000,000, which we need.

In other words, about the crop-moving period we would be in position to expand our currency to the amount we need, \$150,000,000, and after that period, the same ratio applying as applies in Canada, that same amount of \$150,000,000 would flow back and would be retired. In other words, we would have met the needs of our agricultural country, we would have gone on without disturbance, no one would have been injured thereby, you would not have had the \$150,000,000 remaining out after it once came out to create inflation and expansion and promote unsound undertakings in the summer when the money was not needed; and on the other hand you would not have had extreme stringency and the calling in of legitimate loan and high money rates at the time when money was needed.

These, gentlemen, I think, are the salient points—these are the principles that underly the system we propose. As to the details, we have endeavored to work them out conscientiously. We are fifteen bankers who have left our business and have come here in order to try to accomplish something for the benefit of the country; we have not come here by reason of any benefit that may accrue to us or to our individual institutions, but because we are representatives of an institution that people come to. People come to the bank when they need money, they come to the bank for advice; and those of you gentlemen who have been engaged in the banking business know that when the day is over, after you have listened to all the tales of woe that daily come to the ears of the banker, you have generally had a pretty busy and tiresome day and are glad to rest.

Now, we have endeavored to meet a situation that bears more heavily on the people, much more heavily than it does upon the bank. The bank can stand back and say "We have not the money and we can not lend it to you." The individual may say, "If you do not lend it to us we will have to fail." And then the banker can reply, "Go on and fail; it won't hurt me." But the banker does not take that position; he is there to protect business; he has a higher object in the conduct of his business; he is not in the position of many jobbers and retail grocers, who often inject illegitimate means to secure business from their competitors; the banker is there to inject as far as possible a high degree of conservatism in the management of his affairs, and in order to do this he must be given the means, he must not be placed in a restricted position where he is powerless to exercise the mental faculties which have been given him, and it is only through measures of this kind which have been tried in France and Germany and Scotland and Austria for years, and found to be successful, that the bankers of this country can hope to be placed in such a position.

Mr. GILLESPIE. When call money was 120 in New York what was it in New Orleans?

Mr. WEXLER. We have no call money there.

Mr. GILLESPIE. What was the average rate of interest at that time?

Mr. WEXLER. Probably from 7 to 8 per cent.

Mr. GILLESPIE. Does not that prove that is a local situation and not a general situation?

Mr. WEXLER. No, sir; it does not prove it at all, and for this reason: If we put out money on call in the city of New Orleans and we call a man there is some likelihood of his coming around in two or three days and paying it, or coming round and begging off and asking for more time. Call money outside of New York does not mean anything. If you call a man in New Orleans because you need the money he will probably say he can not pay it, and if you insist on payment he will quit doing business with you and go to another bank. That same thing can be said of Texas. There is no call money in Texas.

Mr. GILLESPIE. Not very much of any kind; not enough of any kind.

Mr. WEXLER. There is a good deal there. The same condition prevails everywhere outside of New York. The fact we are loaning money at 6 or 7 per cent down there is because we loan it to people who carry money throughout the year, who pay 6 or 7 per cent when money perhaps is only 2 per cent in New York. A depositor of ours, who has maintained a reasonably good deposit, comes in and wants to borrow money when money is tight, and we loan it to him at 6 or 7 per cent, and at that same time if an outsider came in who had no claim whatever on the bank we would ask him 120 per cent, too, because there would be no reason to loan him, and we probably would not loan it to him at all, because when we wanted it back he might not be able to pay it.

Mr. GILLESPIE. That is the reason you would not loan it to him?

Mr. WEXLER. Yes; that is the reason.

Mr. FORGAN. You assume your fair share of responsibility for the conditions that do exist?

Mr. WEXLER. Unquestionably we do. We are responsible for that condition to an extent, because in the summer months when we carry balances in New York of from \$1,200,000 to \$2,000,000, on which we get 2 per cent interest, because we can not loan that money out in our own neighborhood with the certainty that we can get it back when we need it—we must send it where we can get it when we want it—they pay us 2 per cent and they loan that money out, and when the people begin to call on us for it we call on New York for it. They have loaned it out, and then they have to call on those to whom they have loaned it, and the whole fabric is disturbed in consequence. We have no reason to complain of New York. Whenever we have to have money we go to New York for it.

As I have said, under our present system we can not get the money we need at the time of moving the cotton crop. I know that it often happens that cotton lies on railroad platforms for three or four or five weeks in consequence of the inadequacy of our transportation facilities. What we want is a system that will enable us to continue to develop along legitimate lines, of course. I do not mean to say that there is not some illegitimacy in it, but the general trend of the people of this country can be depended upon; they can be depended upon to do what is right to develop the country along proper lines, and because here and there there is a trust which has abused its privileges is no indication that we are all wrong by any means.

I tell you that in our country—and I think the gentleman from Texas will testify to the same thing as to Texas, because there is no

State developing more rapidly than Texas and no State that draws more currency or returns it more promptly when the season is over—I tell you what we need is the means of facilitating our people in the handling of their magnificent agricultural products. The cotton that we produce is the article that produces the gold for the country, that brings in a stream of from \$500,000,000 to \$700,000,000 every year, which is the basis upon which we are building up our credit and our finance, and we must haul this cotton in for market promptly; we want the mill men to be able to buy this cotton, and for that purpose we must furnish this currency, and we can not permit our gold reserves to be drawn out just at the season when the extension of credit is most necessary, and we are compelled to contract our loans just when everybody most needs the money. And this bill is the remedy.

It is approved by the people who have studied it, it has been approved by the clearing houses, and it must be admitted that these gentlemen have financial ability. Why should it not meet with your approval, then, you gentlemen composing the legislative body of the country? Wherever this bill has been disapproved it has been by men who did not thoroughly understand it. It has been said by some it is giving the banks money at $2\frac{1}{2}$ per cent to loan out at 5 or 6 or 7 per cent; but when the plan is thoroughly explained nearly all those who have had objections have come around to believe in the wisdom and efficiency of the plan, and I think that is all it requires—a campaign of education—because its principles are sound, and whenever the principles of any measure are sound it is bound to prevail sooner or later. And so if this is not passed at this session, I say it is bound to be passed at some other session, because the principles are right.

Mr. GILLESPIE. Does not the present law itself draw the money to New York, to the bigger centers? Our small banks are required to keep a reserve of 15 per cent. Now, three-fifths of that they can keep on deposit in the central reserve cities?

Mr. WEXLER. Yes, sir.

Mr. GILLESPIE. If they keep it at home, they can not loan it out. They have to keep that 15 per cent reserve?

Mr. WEXLER. Yes.

Mr. GILLESPIE. So is it not the law itself that draws the money from all over the country? A country bank need not keep but 6 per cent really in its reserve, the balance of it, 9 per cent, goes to New York—

Mr. WEXLER. Or any of the twenty-nine reserve cities?

Mr. GILLESPIE. Yes. Now, in obedience to this law we have fixed on the statute books—and there is no fancy about it; the law itself draws it there—they find their vaults full of money, as stated by Mr. Forgan, and they pay a little interest on it, and self-protection demands that they put it out and recoup, save themselves, and they put it out. Now, then, the balance of the country wants it. Your law has piled it up in the central cities. You do not advocate any more currency than \$33 per capita, which we have now, do you? The question in your mind, as I understand it, is the question of elasticity. The law we have already on the statute books piles the money up in the central reserve cities. It is admitted that this is possibly dangerous, that this system is putting out paper money, in some sort of

sense fiat, increasing the demand for gold—that you say you have not sufficient of now—to meet the demand already upon it. Why not reconstruct the law?

Mr. WEXLER. There is no fault in the law. Money is like water; it always seeks its level; it always goes where it can be invested profitably, and it withdraws from the places where it can not be invested profitably.

Mr. GILLESPIE. But does not the law make that?

Mr. WEXLER. No, it does not; and I will show you why it does not. Your bank in your town would loan that money out over and above its reserve, and you have to keep that same 9 per cent in the hands of a reserve agency in the fall the same as in the summer. Consequently that money does not fluctuate to any extent, but it is the surplus money over and above that which is sent to the cities for investment.

Mr. GILLESPIE. No; under the law three-fifths of it can go.

Mr. WEXLER. Yes; 6 per cent stays at home and 9 per cent goes to the reserve cities. They are not going to keep the 9 per cent at home because they can get 2 per cent up there. That money remains there and can be counted on by New York. That money does not fluctuate in New York to any extent. If we had call money in New Orleans as they have in New York we would not send it to New York; we would loan it out on call.

Mr. GILLESPIE. Does not the fault lie in the fact that the banks in New York will bid for this money?

Mr. WEXLER. They pay 2 per cent on it, and it is a very fortunate thing that there is one part of this country that is a financial center where good collaterals are obtainable, against which you can loan your money; that is a good thing. The country would not develop if that were not the case. That money you send there is used in development at times. The chances are you would lend it out at home on farms if you could not do that, and when you called for it—

Mr. GILLESPIE. Would not that be better than to send it to New York to get one-half of 1 per cent or a little interest on it?

Mr. WEXLER. No; but saying that it would be better to keep it at home you would have to provide yourself with some means to pay your depositors in September or October (and that is what this proposed currency will do), and when you have loaned it out and your depositor wants it you have to call it in or you have to issue to him out of your gold reserve or you have to borrow money to pay him. You have to pay him. How can you pay him if your money is loaned out except by drawing in your loans? We are trying to provide a means by which you can pay him when he needs the money without drawing in your legitimate loans. That is the very object of this currency. You have raised the point nicely, that is the important point in this matter. Then in the summer time when that man has sold his crops your notes are retired—the notes you have given him in payment for his deposit. In other words, you are granting him the right to choose for himself whether he wants his credit on your books available in checks or in some kind of money that he can pass around among the people. You give him that choice, that is all.

Mr. PUJO. I would like to have an expression of your opinion as to the effect this currency would have upon interest-bearing deposits in the smaller communities of the country—say time deposits—money put in on deposit for six or twelve months.

Mr. WEXLER. It is my opinion that this would not affect such deposits in the least, for the reason that money that is taken by banks and against which it issues a time certificate of deposit is something which can be used for different purposes, different from money deposited subject to check. State banks are the ones that make a specialty of paying these rates of interest on time deposits, and they in turn loan it out on real estate or something else which pays them a higher rate of interest.

I am familiar with the operations in the smaller banks of the country, because we do business with some 400 of them, and I have lived in that country most of my life and know all about it. I have seen them pay as high as 5 per cent on a deposit for one year, and they will loan it for 9 or 10 per cent on real estate. But they would not dare to do that on deposits that were put in their banks subject to check. Consequently, if they could not afford to loan it at a profitable rate they could not, naturally, afford to pay a high rate of interest on money subject to check; but on the contrary they can take money on time deposit and pay a good rate of interest and loan it out at a higher rate of interest. So I can not see how it would affect the interest paid on those time deposits. I do not know many national banks that are paying such a rate of interest as you mention. In our city it is not the custom to pay any interest on checking accounts. Savings banks pay 3 per cent on six-month money. They can make a profit on that by lending it out, and they are at an advantage because they only have to keep 12½ per cent reserve. If a national bank did that, that money would cost them nearly 5 per cent; they could not afford it. So I do not think it would affect the interest on these deposits in the least.

Mr. FORGAN. I would like to add a thought that occurred to me in reference to Mr. Wexler's answer to a question in regard to the reserves of the country banks being held in the central reserve cities, which is this feature of it: That in every civilized country there is a financial center, naturally so, legitimately so, and necessarily so. New York is the financial center of this country and there is where all the big operations take place, and there, naturally, all the surplus funds that are not in use will drift from all over the country. Take a bank like the First National Bank of Chicago, the largest bank in the country outside of New York, and what do you find? The law compels us to keep 25 per cent reserve in our vaults the same as it does in New York.

In addition to that there is not a national bank in Chicago that can do its business without keeping 15 per cent additional reserve in the shape of New York or other eastern balances, mostly New York, however. It can not transact its business, it can not supply the demands of its customers for exchange without that additional 15 per cent in the shape of balances due from banks. So the national banks in Chicago, while they keep 25 per cent legal reserve, the same as New York does, have always this advantage, which is a great advantage to them as regards strength, looking at it from that standpoint, as compared with New York banks, they have this additional 15 per cent, they have that much at their credit in New York, and to that extent they are that much stronger in immediately available resources than New York banks, because the New York banks are liable to have that drawn out of them and they do not have similar

balances anywhere to draw on. Yes; they do have some outside balances to draw on.

They go to the great financial center of the world, London, as Mr. Hepburn says, and that is where they get their elasticity, by making their arrangements in a foreign country, or rather foreign city, and keep balances over there against which they draw in foreign bills of exchange, just the same as we operate with 15 per cent of our total deposits in domestic exchange. But some Chicago banks have these foreign accounts also. Not only is this so with the banks in this country, but New York is the financial center now of this entire continent, including Canada, and what do we find? This is the point I want to bring out. While the law does not require the banks of Canada to keep any reserve in New York, you will find that there is not a bank in Canada that has not as large a proportion of its funds in New York to its cash resources as any bank in the United States to-day.

They do this because New York is the financial center of the continent, and they establish their own branches and keep credits in the national banks there, and they do it because of the natural requirements of their business. And they are operating in New York exactly as our national banks are. While they are under no law to compel them to do so they find it necessary to do so. There is not a bank in Canada that has not got a large balance in New York simply to supply the large demand it has over its counter for that exchange, and they go there and keep their surplus funds there the same as we do. The same thing is true of our State banks; they are under no legal requirement to keep balances in New York, but they do keep them just as much as the national banks do. They could not do their business and properly serve their customers otherwise.

(Thereupon at 1.15 o'clock the committee took a recess until 2 p. m.)

AFTERNOON SESSION.

The committee met, pursuant to the taking of recess, at 2 o'clock p. m., Hon. Charles N. Fowler, in the chair.

The CHAIRMAN. Since some of these gentlemen want to leave this afternoon we will begin the hearing promptly, even though all the members have not returned from luncheon. We would first like to hear from Governor Herrick, if he has anything to say to us in regard to this bill.

STATEMENT OF HON. MYRON T. HERRICK, CHAIRMAN SOCIETY FOR SAVINGS, CLEVELAND, OHIO.

Mr. Chairman and gentlemen of the committee: Mr. Forgan and others of the commission have so clearly and exhaustively presented the case of elastic currency, its desirability as a vehicle of commerce, and of the inadequacy of the present system, that there is but little that I can add. As our chairman has suggested, we do not come here to instruct you in this particular branch of economics, with which you are so familiar, but we come rather to advise and assist the committee in the preparation of some adequate legislative measure embodying such currency reform as the country demands. This was the idea of the American Bankers' Association in the appointment of

this commission. For many years Congress has been trying to devise some wise currency measure that would keep pace with the leaps and bounds of our commerce in its remarkable progress.

At the same time the American Bankers' Association has assiduously endeavored to solve this perplexing problem without tangible results. Your committee has met with better success than the bankers, for you have succeeded in agreeing upon a measure and presenting it to Congress, and doubtless the problem would then have been solved had Congress accepted your advice. The principal reason why the Bankers' Association has been unsuccessful in reaching an agreement acceptable to the bankers of the country generally has been that it was its belief that from an economic point of view our whole currency system is wrong, and the attempt has been made to retire the United States Government from the banking business and to build anew in this respect. In other words, the association has reached for the unattainable, the political impossibility, the creation of a new system of finance. With the experience of nothing accomplished we have grown wiser, appreciating that the only hope of relief from existing conditions is in building upon the present system—extending and broadening its scope.

The American bankers have been advised by the executive and legislative departments of the Government from time to time that the failure to enact proper legislation was largely their own fault, the bankers having completely failed to agree upon any plan, and that but little relief could be expected from Congress until some feasible agreement was reached; therefore, this year, after an exhaustive discussion of the whole currency question at the convention of the American Bankers' Association, a committee was appointed and instructed to meet and agree upon a plan which should be submitted to your committee. We met, determined to carry out our instructions to the letter, with minds open and with a patriotic purpose, and after a full discussion we have agreed upon a plan which we present to your committee, and which is, by virtue of our action, the plan of the American Bankers' Association.

We are here to urge and impress upon Congress, through you, the importance of at once passing a measure which shall embody the principles of our plan, which, we believe, is adequate to meet the growing demands of commerce. We are gratified to know that, in the main, the principles agreed upon by our commission are in accord with your views. The demand for the repair of this vehicle of commerce is as urgent and necessary as was the reconstruction and enlargement of our railway systems. Our present medium of exchange is as inadequate to carry on the vast business of the country as the railways twenty-five years ago, with their single tracks and 50-pound rails, were unequal to the task of moving the freight of the country. The need of currency legislation is no longer a debatable question. There are some that maintain that legislation would be of no assistance. We hold that this is a situation that legislation alone can relieve. We are satisfied that our measure is economically sound, and, in the words of your chairman, "politically wise," and the banks of the country, in the name of the people, demand action without delay.

It is of course futile to attempt by legislation to prevent reckless expenditures, wild speculation, and unwise expansion of credits,

just as it is impossible to prevent railway wrecks due to recklessness, carelessness, and neglect, but as it is the manifest duty of the railway manager to provide a good roadbed, 90-pound rails, and to adopt every known precaution against disaster, so Congress can not escape the responsibility of providing a currency fitted to the needs of multitudinous business transactions of our nation, and when it has done everything in its power to effect this Congress can no longer be charged with responsibility for financial recklessness or carelessness. Members of your committee have suggested that there are two elements likely to militate against the passage of this measure—one that it is a bankers' measure, and the other that it is a Wall street measure.

It is a bankers' measure to the extent heretofore explained. The bankers of the country have, or should have, by virtue of their vocation, some technical knowledge of this subject, and it is the very earnest desire of the bankers that the annual stringency in the money market should be relieved, even though it be possible that bankers make more money in a tight market. After all, who are the bankers as we see them at the State and national bankers' association meetings? It is interesting to note that at least nine-tenths of them are men of moderate or small means. They are truly the representatives of the people, and their interests lie close to the people. The stock in their institutions is held by the people, and it is at the behest of the people who demand relief in the interests of trade and commerce that the bankers appeal to Congress for assistance.

To those who might be prejudiced by the advocacy of a measure by the bankers in which they are vitally interested, it might be pertinent to suggest that these same institutions are practically the only ones throughout the entire country who have not been guilty of overcapitalization, or of capitalization beyond actual cash assets, and the people who are honest in this prejudice, as many doubtless are, to bankers should bear in mind that the so-called "money power" is, after all, but the power of the people who deposit and borrow, and that the bankers are but the salaried representatives of these people. I would say to those who complain that this is a Wall-street measure, that there are certain general and fundamental principles of finance which, if well considered, must lead the Wall-street broker and the country banker to the same conclusion. As the measure now stands it is manifestly for the benefit of the country as a whole, and is not applicable to one locality more than to another.

It has been the aim of the commission in framing this measure to recognize the needs of every part of the country. This is in the line of political wisdom, and is in harmony with the principles of sound economics. I do not know whether we have the approval of Wall street or not. I hope so, but I fear not. However that may be, this measure should stand or fall upon its own merits, and not because it meets with the approval or disapproval of any particular set of financiers, whether in Wall street or in Oklahoma.

I have not the slightest doubt that if your committee were empowered to draft and to put into operation a law to replace the present currency system you would lay aside the present national system, and, without false pride, model after the institutions of the Old World which have stood the test of time and of great financial crises—such as, for example, the institutions of the United Kingdom, France, and

the German Empire. But discussion of what might have been is futile. It is universally recognized that no plan, other than that of supplementing the present national system, is politically possible.

Further detailed discussion of the six principles embodied in our measure is not here necessary. Suffice it to say that every detail was discussed at length and agreed upon by a two-thirds majority of the commission; therefore we are behind this measure and are earnest in our desire to aid you in enacting into law this measure or such a one as we are satisfied that your committee will report out to Congress, believing as we do that such action will bring the relief so long and so greatly needed. No other legislation proposed is as important at the present time as this currency legislation. If the people generally could appreciate, as your committee, our commission, and bankers throughout the country appreciate, the importance of this measure it would pass unanimously in this short session of Congress. The gentleman from Texas has spoken of the reason for the flowing of money to New York in times of easy money and back again in times of great stringency. The reasons for this have been set forth by those who have preceded me—the principal reason being that New York is the only real call loan market in the United States.

When money is easy it is placed in New York at a small rate of interest or it is loaned there on call, and in times of stringency the loan may be called or the account checked against. The outside banker knows that his check on New York will be paid without question, and that his money on call can be obtained at once, therefore the money goes to the financial center. High rates prevail in New York when the country at large has use for its money, low rates when it has no use for its funds and permits it to accumulate in New York. The high rates which prevail in Wall street are due to several things—one is that a call loan in New York means a call loan and not an argument on the question—therefore when a loan is called it must be paid and the borrower must find it elsewhere at any cost or fail. That is what causes bankers in Texas or Chicago to deny their customer at the average rate of 5 per cent or 6 per cent and to hasten their funds to New York where 18 per cent or 25 per cent may be obtained, as the case may be. It is hoped and believed by this commission that such a situation will be remedied by a little less rigid currency system.

Mr. SHARTEL. Yours is not a national bank?

Mr. HERRICK. No; a savings bank. We carry between \$5,000,000 and \$6,000,000 all the time subject to check. That was our cash on hand in 1893.

Mr. GILLESPIE. Subject to demand?

Mr. HERRICK. Yes; subject to check. We carry more in New York than we did prior to 1893. In the panic of 1893 we found that checking upon our depositories in our own city simply aggravated the situation, since they had come to regard our deposit as permanent and had loaned the funds to their customers. At that time we found it more practicable to obtain needed funds to sell Government bonds and other securities than to press the local institutions. You will recall that at that time the bankers hoarded currency, in the fear of not being able to meet the demands of their depositors, who for the time being were unwilling to accept checks or drafts, and, therefore, in the midst of the panic there was more actual currency

in the banks of the United States than there is to-day, or at any other period since, in proportion to deposits.

The CHAIRMAN. The percentage?

Mr. HERRICK. Yes; the percentage. In the midst of this currency stringency in different cities, such as Cleveland, for instance, when the bankers met and agreed upon a plan for the issuance of clearing-house certificates, the currency famine greatly subsided. I have little doubt that the banking institutions of the country, as a result of their experience with local money markets in 1893, have been inclined to keep more money in New York.

The CHAIRMAN. What do you do?

Mr. HERRICK. The same thing.

The CHAIRMAN. Give us the amounts.

Mr. HERRICK. Between \$3,000,000 and \$4,000,000.

The CHAIRMAN. What interest do you get?

Mr. HERRICK. Two and one-half per cent to 3 per cent.

Mr. WEXLER. The trust companies have a smaller reserve than you do?

Mr. HERRICK. Yes; they carry a smaller reserve—smaller than the national banks.

Mr. GILLESPIE. Do you favor all banking institutions coming under the national system?

Mr. HERRICK. I think that that is impracticable. I think it will never occur.

Mr. GILLESPIE. What is your individual opinion as to the wisdom of doing such a thing?

Mr. HERRICK. I believe that it would be vastly better if the banks throughout the country operated under one charter—and that a national one. The paramount reason for this is that many States refuse utterly to pass inspection laws regulating State banks. This is a wrong principle or lack of principle. Every State should carefully regulate its banking institutions. I regret to say that my own State has not yet arisen to the necessity of adequate inspection laws.

Mr. GILLESPIE. Has experience not shown that the State banks, as they now exist, are about as safe as national banks, according to the report of the Comptroller of the Currency?

Mr. HERRICK. Reports made to the Comptroller of the Currency by State banks are very incomplete, because such reports are not compulsory, but as a matter of fact I believe that there have been more failures of State banks than of national banks, and that the most disastrous failures have been those of State banks. I also note that the worst failures are in those States without inspection laws.

STATEMENT OF MR. CHARLES H. HUTTIG, PRESIDENT THIRD NATIONAL BANK, ST. LOUIS, MO.

Mr. Chairman and gentlemen of the committee: One of the benefits of this measure, should it become a law, would be a lowering and an equalization of interest rates. In the discussion of the subject thus far this very important feature has been all but overlooked. In my opinion interest rates would not fluctuate under this plan of elastic currency as they have done in the past; they would be more stable, as they are in Canada and Scotland, where the operation of a currency system somewhat on the order of the one proposed has been successful for many years.

The purpose of the measure is to secure elasticity in our currency system—that is to say, to have the volume of money increase and decrease to correspond with the demand for it at different seasons of the year, and the changes in the requirements for money and credits will be quickly reflected by the current rates of interest. When interest rates fall to 4 or 4½ per cent it would be unprofitable for a bank in a central reserve city to issue credit currency, as the provisions of the bill require that the same legal cash reserve be maintained against this currency as is now held against deposits. This, plus the tax to be paid into the reserve fund under the control of the Government, would force a quick retirement of these credit notes when interest rates fell below 5 per cent.

Mr. WALDO. Would the tax paid to the Government be regulated by the showing made on the books of the bank as to the amount of credit money in circulation?

The CHAIRMAN. Just as it is to-day, by the bank's daily report at the end of the month.

Mr. HUTTIG. The question raised by the Representative from Illinois as to the possible effect the rate of taxation on this currency would have on the interest rate on deposits can be answered in this way: The usual rate paid on time deposits covering a period of six to twelve months is 3 per cent; the bank knows it can safely loan out such deposits at a higher rate of interest for the same length of time. An issue of credit currency would have this radical difference in its loaning qualities: Such currency would constantly be seeking redemption, and for that reason it would operate very much like a demand deposit, which would be placed with a bank one day and withdrawn the next or the day following, then redeposited, and a few days later checked out again. A bank could not afford to pay 3 per cent on such a deposit because of the uncertainty of the length of time that it would be available for loaning purposes. I should like to emphasize this thought, that primarily this legislation is in the interest of the public and not the banks. The banks would simply be furnished with the mechanism and machinery to meet the requirements of business. I can not believe that the profit under this plan would be unduly large.

Mr. GILLESPIE. Have you seen that little statement that was handed in this morning?

Mr. HUTTIG. Yes; but I do not believe interest rates would advance to the high point named in the statement if this system was adopted. It is probable the maximum rate would be 6 per cent, because the demand for money and credit would be supplied automatically by an increase in the supply of currency, and in that way prevent a higher interest rate.

It has been stated by a member of your committee that the high interest rates in New York now prevailing pertained and applied to that center only and in the rest of the country lower rates prevailed. The facts are, however, that if there is any surplus loanable money in the United States such surplus can get the benefit of the high rates obtainable in New York. Eastern loans have been offered to western bankers at 8 to 9 per cent for ninety-day paper secured by good marketable collateral. The New York banks have no monopoly of the eastern money market. They can not control the price of money. A great deal of western money is now being loaned in the East, western

banks using their New York correspondents to negotiate such loans for them.

I have often heard it stated that the New York banks were manipulating interest rates with a view to influencing stock-market operations. I have serious doubts as to the correctness of such statements. My own acquaintance with New York bankers would lead me to different conclusions. New York is the natural money center of the country, and is therefore naturally sensitive and responsive to every important change in conditions.

Mr. GILLESPIE. How long do they want you to carry these loans you speak of, on which the interest rate is 9 per cent?

Mr. HUTTIG. Ninety-day paper, from sixty days to four months.

The CHAIRMAN. Is it not a fact that the New York banks in the more recent years, perhaps more in the last two or three years than ever before, have been acting merely as agents for a large number of out-of-town banks?

Mr. HUTTIG. There is absolutely no question about that. As before stated, the country banks are lending immense sums in New York, not only on New York stock-exchange collateral, but to eastern manufacturing and mercantile concerns as well. The institution which I represent employs its surplus funds about this time of the year by buying \$3,000,000 or \$4,000,000 of outside paper, mainly commercial paper of well-known and reputable houses throughout the Eastern States.

Mr. GILLESPIE. Will you explain why it is that our Texas banks, where they can get from 6 to 10 per cent at home, will send money to New York on these time loans at 4 and 5 and 3 per cent interest?

Mr. HUTTIG. Well, I think——

The CHAIRMAN. Do you understand that question?

Mr. HUTTIG. I doubt the rate of interest as stated being correct.

The CHAIRMAN. The assumption is not right; there is no such thing as a time loan in New York at 4 per cent.

Mr. GILLESPIE. That makes it worse, then.

Mr. HUTTIG. I talked with one of your principal bankers in Texas early in the year, and he told me he had loaned out over a million dollars on call in New York last fall, and that the rate of interest on his loans averaged 18 per cent.

Mr. GILLESPIE. In New York?

Mr. HUTTIG. Yes; in New York; and the loans were made by one of the best banks in Texas.

Mr. GILLESPIE. There is some sense in that, if you can get more interest over there—there is some sense in sending the money there—but this proposition about lending money in the East at a less rate of interest seems to me to be nonsense.

Mr. HUTTIG. I presume you mean it is nonsense for banks in the West to keep their deposits in New York banks at only 2 per cent interest. It is necessary that western banks maintain balances in the East for the regular conduct of their business, and the natural fluctuations in deposits makes a cautious banker keep more money available and subject to check with his New York correspondents than his actual requirements demand for the daily conduct of his business.

Mr. LEWIS. Is it not true that these banks away from the money centers find they have surplus money after their crops are harvested, and that they send that surplus money to New York because they have not a demand for it at home? They send it to New York to get

that 2 per cent interest; and have they not another reason also for sending it there, and that is that when they need the money badly at home they can go to the New York bank and borrow money; that having large sums of money in the New York bank when they did not need it at home, that when things turn around and there is a big demand for the money at home to move the crops, that they can borrow that money from those same New York banks—of course, paying a higher rate of interest for it?

Mr. HUTTON. Yes; it serves a double purpose. A western banker is in practically the same attitude toward his New York correspondent as the merchant is to his bank. If the merchant keeps a good balance with the bank, he is entitled to a certain line of credit, assuming, of course, that he is thoroughly solvent, and so, if the country bank keeps large deposits with its New York correspondent at certain seasons of the year, the New York bank finds it desirable and necessary in order to hold its patronage to accommodate the country bank at such times when the western bank requires the accommodation by reason of the local calls on it incidental to the crop-moving period and other causes.

Mr. JAMES. Would not the purpose of this be to keep the banks from paying the people more than 2½ per cent interest?

Mr. HUTTON. I do not think it will have a thing to do with it. Time deposits would be sought after just the same, and the rate of interest paid thereon would not be affected for the reason that, as stated before, when the lending rate is below 5 per cent it would be unprofitable to keep out credit currency, thus operating to contract the volume of money in circulation. It is only a redundancy of money that could not and would not be retired from circulation which would affect the rate of interest on deposits. Of course a slackening up in the volume of business and a lowering of values all around would have the same effect on interest rates as an extraordinary increase in the supply of money.

Mr. JAMES. But would a bank pay more than 2½ per cent interest to the public for the public's money when they can issue this credit currency for 2½ per cent interest?

Mr. HUTTON. I think so. As previously stated by me, a deposit has more stability and more staying qualities, so far as the bank is concerned, than this credit currency—that is to say, in connection with its lending capacity. If I understand the operation of credit currency correctly, it is constantly seeking redemption—just as a cashier's check is—and your great effort will be to keep it in circulation. It is different with a deposit. It finds a natural lodging place in the bank, deposits being in the nature of accumulated wealth, while this credit currency would be an obligation or debt of the bank. I want to say, in conclusion, that I have given this subject some thought, and in my opinion it is very vital and necessary that we secure legislation along these lines immediately—that is to say, if we expect to have any increase in our degree of prosperity. In fact, I wish to emphasize this statement by adding that this legislation is necessary in order to continue our present volume of business. It is true there is not enough money in the country—or in the world for that matter—to take care of the present range of property, security, and commodity values and prices, consequently there will have to be

a readjustment of such values unless the situation is met somewhat along the lines indicated.

Mr. GILLESPIE. That is the silver argument we made in 1896.

Mr. HUTTIG. I am not a silver man. I am simply stating an economic truth, and in that connection wish to bring out the fact that heretofore we were compelled to get relief from an overdose of prosperity by temporarily borrowing money from Europe, but now the condition of the Old World, financially speaking, is a great deal like our own and we must work out our own salvation. We are trying to do so through the measure proposed.

Mr. JAMES. The per capita circulation has increased about one-third since 1896, has it not?

Mr. HUTTIG. Yes; but the wealth of the country and the increase in values has run ahead of the increase in the supply of money. The gold production in the last fifteen years has been \$3,800,000,000, and for the four hundred years previous to 1890 only \$7,800,000,000.

Mr. JAMES. The prosperity of the country, then, is to a great degree due to the increased production of gold?

Mr. HUTTIG. I should say that the prosperity of the country was mainly due to the production of wealth through its agricultural, mining, and manufacturing operations and advancement. The increased production of gold and its advent into circulation permits of the wealth of the country being properly represented through the medium of money.

Mr. HAYES. And has not the business of the country also increased much more rapidly since 1896?

Mr. HUTTIG. It has; and, in my opinion, the ratio of its increase has been much greater than that of the gold supply.

Mr. GILLESPIE. Then the real trouble is, we lack enough genuine money and not so much elasticity in what we have already got?

Mr. HUTTIG. I do not agree with that exactly. We want this elasticity for certain seasons of the year, we want a flexible currency, which will automatically meet the demands for money and credits. I have stated before that the supply of money has not kept pace with the increase in general values and in the volume of business. In a great country like ours, it is a natural sequence to the development of our resources, I mean this insufficiency in the supply of basic money.

Mr. JAMES. But the point Mr. Gillespie makes is that if there were a greater supply of real money, there would be no demand for credit money, would there?

Mr. HUTTIG. He is correct to a certain extent only. An increase in the supply of gold in circulation would have the effect of raising prices and thus bring us up to a point where we would be in the same position that we are now. We want to get away from the rigidity of our present system and have a currency which will prevent, at least to a limited extent, an unnatural enhancement in values.

Mr. GLASS. If there is really this demand for increased currency to take care of the increased volume of business, how do you account for the fact that only 62½ per cent of the bond-secured currency permitted under the existing law is taken out?

Mr. HUTTIG. There are two reasons for it. One is that, so far as the individual bank is concerned, it is of no real benefit to that bank to take out bond-secured circulation, passing on the matter from the

standpoint of increased supply of money, and it is illustrated in this way: The bank desiring to take out bond-secured circulation must purchase with cash, say, \$100,000 of Government bonds for \$104,000, it then issues \$100,000 of bond-secured circulation. Instead of increasing the supply of its cash on hand, it is decreased by \$4,000. You will note that the proposition we are advocating is in its essential nature entirely different from this. Under the plan proposed an actual increase in the supply of currency for the issuing bank will be secured. Another reason for the fact that only 62½ per cent of bond-secured currency has been issued, has just been illustrated by the talk about circulation of the New York banks. Their percentage of bond-secured circulation is quite small; I believe it is in the neighborhood of 20 per cent of their capital. The reason for it, and it is the best I can give for the proper working of this credit currency, particularly the redemption features of it, is that in New York they can not even keep their bond-secured circulation out; the bills are constantly seeking redemption through the competition of the national banks in New York, especially by reason of the fact that national-bank notes can not be held as legal reserve against deposits. The attitude of the New York banks in reference to circulation is the most forcible argument in favor of the redemption feature of this plan.

Mr. GILLESPIE. Is that not elasticity?

Mr. HATTIG. That is elasticity, but it is on too small a scale. It is confined to New York on account of the proximity of New York to Washington, New York banks forwarding the notes of other national banks to Washington for redemption in order to get in exchange legal money which they can hold against their deposits.

Mr. GLASS. Is not the real reason, after all, that the banks do not take out the full amount of bond-secured currency; that there is but little profit in it?

Mr. HATTIG. There is a profit of a little over 1 per cent.

Mr. GLASS. And another reason is that they are not allowed to retire more than a certain amount when they desire to do so?

Mr. HATTIG. That probably is an influence, but a good many banks are influenced by the possibility of fluctuations in the value of Government bonds. For instance, if the price of bonds is 104 to-day and in a year from now they should drop to par, there would be a net loss of 3 per cent on the circulation.

Mr. JAMES. This bill virtually means that the Government will loan national banks money at 2½ per cent interest, does it not?

Mr. HATTIG. No; I should say not. The Government does not make any loans. The public would hold the credit currency, and they would be in the attitude of depositors with the issuing bank.

The CHAIRMAN. Would the Government be any more loaning banks the amount of these notes than the Government is to-day loaning all the deposits made by the banks?

Mr. HATTIG. I would say no.

Mr. JAMES. The only difference is that they are not getting any interest. I mean the deposits that the Government puts in the national banks.

Mr. HATTIG. That is a different proposition. The Government merely acts as agent for national banks in having prepared for them

this credit currency, the same as they do now for the national bank note circulation. They would also act as agent in controlling a proper guaranty fund to protect the note holders.

Mr. JAMES. They do not get any interest on those?

Mr. HURRIG. No; but there is no relation between the Government deposits and bank-note circulation.

Mr. GLASS. Do you not think, then, that the repeal of the law prohibiting the retirement of bond-secured circulation would help the situation any?

Mr. HURRIG. No, sir; I do not believe it would give the needed elasticity to our present bank-note circulation, for the reason that circulation now is not taken out for the purpose of increasing the volume of money, but because of the profit in the investment feature of the transaction. We are induced to take our circulation now because in doing so we can make a profit of $1\frac{1}{2}$ per cent on the amount of said circulation; or it could be better stated, this would be profit on our investment in Government bonds when used for the purpose of securing bank-note circulation, it being an investment that would not be changed from time to time to meet the fluctuations in currency requirements.

Mr. GLASS. The idea is that the banks will be able to make more money out of the credit-note system than out of the bond-secured system?

Mr. HURRIG. I do not believe that the credit-note system would be purely for the benefit of the banks.

Mr. GLASS. I am not saying it is purely for the benefit of the banks, because I think that what is for the benefit of the banks is largely for the benefit of the borrower. I think the question ought to be considered from the standpoint of both the banks and the people.

Mr. HURRIG. I agree with you. The institution which I represent has been shipping out about \$200,000 a day in currency to the South over a period of three and a half months. Most of it went to your State, Mr. Gillespie, and it has been an immense struggle to us to fill these orders. We have had standing orders with New York and Chicago to ship currency to us, a certain volume daily, and such shipments were made every day. Now, it is an actual fact that we had a scarcity of money, particularly of small bills—what is known as counter currency—for from three to five months of the year.

Mr. GLASS. What I am trying to arrive at is why it can be expected that the banks will issue these credit notes if this should become a law when they do not now avail themselves of the privilege of issuing bond-secured currency.

Mr. HURRIG. I tried to make that clear, that the banks must first purchase the Government bonds, and that their attitude is that of an investor in bonds. The circulation taken out against these bonds being an incident to their purchase and, of course, a necessary incident in order that the profit of 1.1 per cent on the investment be secured. The bank does not increase its supply of cash when it issues its bond-secured notes; in fact, its volume of cash is decreased. However, the total volume of circulation in the country is increased correspondingly. Does that cover your question?

Mr. GLASS. I think, as I said, that at last it resolves itself into the question of whether the banks will not make more money out

of the credit currency than out of the bond-secured currency, and they will issue credit notes, whereas now they do not issue the bond-secured notes.

Mr. HUTTIG. Well, they are compelled to keep the present volume of bond-secured notes in circulation in order to get the advantage of the credit issue of notes.

Mr. GLASS. They are compelled to keep it in circulation, and therefore I ask that we repeal the law about the retirement of the bond-secured notes. Would not that help the situation?

Mr. HUTTIG. It would not give flexibility or elasticity to the bond-secured circulation, if that is the point—

Mr. GLASS. That is the point.

Mr. HUTTIG (continuing). Because your bonds are a standing investment. A drop in the price of Government bonds of one or two points might check the sale of them and thus have the effect of preventing any further cancellation of circulation. I am trying to point out the fact that fluctuations in bond-secured circulation would not be caused by an increase or decrease in the demand for money, but by the changing market values of Government bonds. The measure under discussion is an entirely different proposition, the volume of credit money would not be affected by such considerations, but would change to meet requirements.

Mr. MCCREARY. Is it not true that the drop that has taken place in the price of United States bonds has checked the taking out of circulation?

Mr. HUTTIG. Yes; it is that fear of a loss in the market value of Government bonds that causes some banks not to take out bond-secured circulation.

Mr. MCCREARY. In point of fact, when the banks bought bonds, they took the money necessary from the assets of the bank, they changed from one kind of money to another.

Mr. HUTTIG. Yes; that is correct.

Mr. MCCREARY. So therefore there is nothing gained in going from one condition to the other.

Mr. HUTTIG. That is right.

Mr. MCCREARY. From a fluctuating condition into a fixed condition.

Mr. HUTTIG. Yes, sir.

Mr. MCCREARY. And they run the risk of losing the premium.

Mr. HUTTIG. The only advantage to the bank in taking out national bank-note circulation is the profit of 1 per cent on the amount of the circulation, and that is quite a small advantage, considering the risk you refer to.

Mr. MCCREARY. With the risk of the price of bonds going down and the bank losing in that way?

Mr. HUTTIG. Yes, sir.

Mr. GILLESPIE. If it is true that this new currency that you are proposing here is another form of check and has no more significance than that, how can it affect the rate of interest any more than the present deposit currency?

Mr. HUTTIG. Because it meets the demands of business; because it circulates as money in the hands of the people, and thus operates the same as a loanable supply of credits.

Mr. GILLESPIE. Does not that other do the same thing?

Mr. HATTIG. No; you have not the fluctuation in the volume of your bond-secured circulation.

Mr. GILLESPIE. I am not talking about bond-secured circulation, but comparing the ordinary deposit currency with this credit currency you would propose. Do you think credit currency affects the rate of interest?

Mr. HATTIG. I would say that the use of it would; yes, sir. For instance, if the current rate was 6 per cent, it would pay the bank to meet the increased demand by an issue of credit currency. It is a question of the law of supply and demand which would regulate the whole matter.

Mr. GILLESPIE. The law of supply and demand in regard to that money—not these checks?

Mr. HATTIG. In regard to the credit money or the checks, if the latter passed current the same as money, which they would not.

Mr. JAMES. No bank would issue this credit currency unless it felt that it could lend it out at a greater rate of interest than it paid.

Mr. HATTIG. It would have to be possible or the banks would not issue, and that is what makes up the elastic feature of it. When the rates of interest fall from 6 to 4 per cent this credit currency would not stay out; it would, no doubt, be quickly redeemed.

Mr. McCREARY. Is it not a fact that this credit currency is simply a currency for emergency for certain times of the year?

Mr. HATTIG. That is what it is intended for. I shall endeavor to illustrate its operation by assuming that a billion dollars is in active circulation in the pockets of the people and in current use; that during the crop-moving period an additional \$150,000,000 is required; there would then be a total of \$1,150,000,000 in active use and circulation. This volume would be maintained until the demand for currency decreases, which naturally follows after the crops have been marketed; then the credit currency, amounting to \$150,000,000, would gradually be redeemed. It would have performed its mission, and being no longer required in active circulation, would be forced into retirement—in fact, would seek its own redemption.

STATEMENT OF MR. JOSEPH A. McCORD, CASHIER OF THIRD NATIONAL BANK, ATLANTA, GA.

Mr. Chairman and gentleman of the committee, I hardly think it is necessary for me to address the committee after so much has been said on the subject and the ground covered so thoroughly.

I will take the situation up in a local way, however, if you will permit me, because I think the addresses already made fully cover the subject satisfactorily to any reasonable mind.

There are a few features which would, however, affect the sections of this country which I represent and the class of banks that I represent. We have one crop outside of all our other crops that takes \$750,000,000 to move, and it requires that money in three months. We can not keep that money idle for nine months of the year purposely for the moving of the crops. As it is, we have to rely upon the centers, and when we call for it we call for our balances and what we can get upon our discounts, and they have to pay us in bills that we can use for the movement of our crops. That necessarily encroaches upon their legal reserves and cuts off the loaning powers of the centers and thereby forces the rate of interest to a high standard.

Take the one crop of cotton in the southeastern part of the United States. We are more fortunately situated possibly than in the southwest portion. There they have to have the actual currency and use their sight bills of exchange on New York and the other eastern cities to reimburse for that currency, and that pulls these legal reserves out of New York and the East. With us we are forced to have the currency to pay the farmer for his crude product, but we have the local cotton mills dotted all along the foothills of the Blue Ridge that interchange the loan—keep the bank on an even basis—but it takes a currency for, say, sixty or ninety days to do that.

Why should we disturb the entire volume of currency of the United States for so short a period to move a crop which produces a greater trade balance than any other crop, in fact more than any other two products of the United States. The records show that a crop of 12,500,000 bales of cotton will take \$750,000,000 to pay for it. We produce to the United States a trade balance for that one product of \$400,000,000 a year, and that in the crude state of that product, not manufactured, because we ship the crude product abroad.

Now, it is necessary for us to have this currency to move that particular product, and when we make that inroad upon the currency of the United States every section of the Union feels it, necessarily so, and we can not help it.* We have to pay these people for their product.

The advantage coming to the entire Union from a credit currency such as we propose in these principles we lay down is very evident to me, and I trust that it is evident to this committee from what they have heard from Mr. Forgan and others to-day. But let me go just a little further.

We need this currency, say, for sixty to ninety days. Then we have no further use for it and it is our return of that currency to the inland cities of the South and to the eastern cities that creates a redundancy. Why? Because every form of currency you have in the United States to-day has a cost of really more than it floats for. Take your bond-secured currency. You have \$104,000 invested on a circulating value of \$100,000. You have to keep tied up in redemption \$5,000. Therefore you have really contracted credits \$9,000 on every \$100,000. If we had this credit currency, we could use that in the interim between the time when we pay the farmer for his product and when he pays it into the store or to the physician or to the school-teacher, and they back to the merchant, and they through the local banks back to the centers, and then you see we get rid of this credit currency that we ask.

Now, as to the redemption. That is the main feature of the whole proposition. You can not keep this credit currency out on the country any longer than the country needs it. The banker who would foolishly try to inflate by loaning this currency makes a grievous mistake, because he is creating a demand deposit on his ledger and it is tapping at his door every day. He can not do that; there is no inflation coming in that way at all; that will not work. But it is needed to relieve the entire situation just at a certain period when the people of the South are calling for it for the cotton and you of the West are calling for it for the movement of your corn and wheat and other products. I do not think the rate of interest cuts a figure in this proposition at all. It is not a question of how high you shall have it or how low.

In 1893 a law stood on the statute books, the same as to-day, that any State bank could issue money if they wanted to, paying tax at 10 per cent per annum, and not a State bank in the United States availed itself of the proposition, although it was worth really more to them at the time. But that high rate of interest discouraged the institutions and they would not do it. Now, the proposition relative to the rate of interest is simply to cover the necessities for the redemptions and the protection of the public. The commission figured that a 2½ per cent rate, largely experimental to begin with, but fully sufficient to meet the requirements, would take care of the redemption fund—the guaranty fund—that is necessary and pay the express charges for the return of these notes to the different reserve cities.

I think this would be reduced from time to time, but I do not think that it would ever exceed that rate, and there is no necessity for a high rate of taxation, because that will not cause the return of the currency; it is the action of trade and commerce that causes that. Let me illustrate just a little further.

Whenever New York exchange—I refer to New York because that is our center, and the same would be true as to Chicago, St. Louis, and other centers—goes to a discount in Atlanta, then the public want the actual currency. We would put out our bills over the counter, and the bills of any bank that came along, because the country was making the demand for them, and then, when it had served its purpose in paying for this crude product and finding its way back, we need the credits in the East, and therefore the New York exchange goes to a premium.

Therefore there would be a premium set upon every credit note, because any State bank, trust company, or national bank would be permitted to redeem or turn in charges collect to the redemption city that currency and take credit in a center for it. The result is that by the operation of trade and commerce the rule of supply and demand governs the whole proposition. When our bills come in in January and February we would charge them off the ledger, either send them to Washington and take down our reserve fund, or we would charge them back into our vault, just as we do with the national notes to-day. In January, February, and March, when they begin to redeem our bills they send us new bills, in sheets. We never cut them up until we need them, or use them until we need them, because we are saving the tax; and the moment the trade will take those bills, just as soon as the country needs them, we sign them and cut them up and enter them to the circulation account.

Then we make a sworn statement to the Comptroller—I believe it may be to the Treasurer—and pay the duty thereon according to the amount used. The same would be true with the credit notes. Suppose an examiner comes in. You have either to show him the notes retired in your vault or show the credit on the ledger for them. There is no trouble about that; it serves its purpose.

You hear about the redemption of the present bank notes. You have all the redemption facilities at present. Any citizen or bank can create redemption by shipping to the Treasury, charges collect. Why don't they do it?

Here is the reason why. You have an amount of money invested in the bond and it has got to be kept out, and there is no incentive to any banker to shove in the note, because the profit derived therefrom

is fixed and the price of the bond is ruled by that—by the amount that is used—and therefore it is not taken into consideration; but the credit note would be taken into consideration, because every bank wants to displace the other bank's bills in order that its own may find an open mart.

If you will pardon me for a personal, homely illustration I will make one. A gentleman came into our bank in September having a certified deposit on the National Bank of Augusta for \$5,000, on which they were paying him 3 per cent interest. He had moved to Atlanta and came in and showed that certificate to me. He said: "I have moved here and I would just as soon have your certificate if you will take this for me." I said: "With pleasure."

I took up the Augusta certificate, had him indorse it, and issued him ours, and paid him 3 per cent from the date of deposit. What did I do? I took in Augusta's floating credit and put ours out. We used the \$5,000 that Augusta had been using. I guess Augusta would do the same thing for me if it had the opportunity. That illustration comes right home in this currency proposition—it will take care of itself. The banker has no control whatever of the currency as it leaves his window, except that he may deposit lawful money with the Treasury of the United States and stop the interest, thereby preventing the redundancy, keeping the amount at par. The redemption is entirely with the public, and if they do not need the redemption, they will keep the bills; if they do not need the currency, they will redeem it. That settles that in my mind, and I trust it does in yours.

There is one other feature and that is this: There are a good many banks that have, say, \$100,000 of capital and \$100,000 of circulation, while others do not have any or very little circulation. This bill will level that, because the bank that has the full circulation under the bond-secured currency can not afford to sit up on that pinnacle and let his neighbor work against him on the other, and the man who has not the bonds to secure his circulation is just as eager to get them as the man who has the full amount is eager to dispose of them. Sixty-two and one-half per cent of the amount is what the bond security in currency is and that will adjust itself between the banks, and that will adjust itself in the amount of currency they may emit.

There is one other feature, and that is this: The increased wealth of this country is largely going into credits. The deposits of banks are gradually increasing. The deposits in national banks alone are something like \$10,000,000,000, or nearly that amount. It takes \$1,500,000,000 of real money of the Government locked up as a reserve. If you have got only \$3,000,000,000 of total money issued of all kinds (I believe it is \$1,500,000,000 of gold, \$500,000,000 odd of bank notes and \$700,000,000 of silver, and \$346,000,000 of fiat currency—a total of about \$3,000,000,000), one-half of the volume of the currency of the United States is locked up in reserves in national banks; and it is rightly so, it ought to be there; you have a right to protect the deposits of the people of this country and you have to do it by keeping the legal reserves in the banks and forcing them to do it, that is all right; but you must give a leeway to the moving of the crops, and when you take out of that other \$1,500,000,000, \$750,000,000 to move the cotton crop alone, and

that has to be done within three months, you can see very readily that you are going to feel it all over the Union from one section of the country to another; there is no question about that.

Mr. Chairman, you will remember that I made the point this morning that I wanted to be heard in reference to the banks outside of the reserve cities; that I wanted to say a word in reference to the country banks. I think the imputation made that we are not obeying the law is not a fair one. We carry a fixed amount of our reserve locked up in the hands of the cashier and the president, but there is a varying amount as to the increase or decrease of the deposits. In order to protect the class of banking that I represent I say that is an unfair imputation on us—that we are not trying to observe the law. We do give our figures, or the amount of legal, or the amount of national-bank notes in round numbers, but that varies only a small amount as the day's business progresses from day to day. I just wanted to call that matter up for the record.

I believe that I have about covered all the points that I care to discuss. There is one feature about loaning this money in New York that I may briefly refer to. As has been said, we are offered paper by New York brokers bearing $6\frac{1}{2}$ or 7 per cent. I was offered such paper the day before I left home—last Saturday. That will run up to 8 or 9 per cent, with the commission. But that paper is not in New York, that is sold in Indianapolis, St. Louis, and some in New Orleans and other sections, but New York is the mart, and that is where the balance is kept, and when you can loan it there on that class of paper, on fixed time or on call, you get your money, because you do not know your borrower personally. On the other hand, when you come home and lend to the home man he may persuade you for an extension or a renewal.

But there are certain customers who need money whom you must take care of; we make a point to take care of all depositing customers, and every bank, I think, should do so. I think that is the rule throughout the Union; but when the spare funds are loanable, it is dangerous to loan them in your own locality, because if a tight pressure comes you can not get the money there. But if you loan to the other section, and you call it, and they have loaned to that section, and they call it, it brings out the same points in reference to this credit currency, each bank redeeming the other bank's bill and bringing it out into trade and commerce.

Mr. PRINCE. This, Mr. McCord, I am free to say, is purely a hypothetical question, but might be put in the form of a practical question. Would it be to the financial interest of the banks to have a gentlemen's agreement to leave uncanceled all of the elastic currency to the extent of \$150,000,000 in circulation and pay $2\frac{1}{2}$ per cent for such elastic currency rather than pay 3 per cent to depositors? Then you have it out on time, six months or a year or ten years.

Mr. McCORD. Well, gentlemen, I do not see that the two things are relative to each other at all, for this reason. Credit currency takes the place of a bank deposit. The time certificate bearing interest is held out by agreement for a certain term. You have no control over that, because the depositor has the control entirely, not trade and commerce; that individual has the absolute control of the proposition; but trade and commerce rule the other proposition with or without gentlemen's agreement.

The CHAIRMAN. And could there be any more agreement between the 12,000 banks in this country not to redeem the notes than gentlemen's agreement not to pay checks?

Mr. McCORD. Not a bit.

Mr. LEWIS. Let me suggest this: The banks would always pay their customers more interest on their deposits than they would pay on these notes, for the reason that they feel under obligations to their customers, they don't want to see their home money go away from their customers, and is there not competition between banks to secure as many home depositors as possible? So, therefore, they would pay more interest to those people than they would for the credit notes. I say that would be natural; they would want to pay more interest.

Mr. McCORD. I will answer that in this way: There is a certain level to which you can go in the payment of interest on a certificate. Some may figure it from one standpoint, and others from another; beyond a certain level there is a question as to the bank's solvency. With us 3 per cent is the maximum, because we figure that the total volume of our deposits cost us $2\frac{1}{2}$ per cent in the way of taxes, salaries, and other expenses in the handling of the same. Therefore, when you add the 3 per cent that you pay the customers and the $2\frac{1}{2}$ per cent that it costs us, you have brought it up to nearly 6 per cent basis, and our loaning rate is from 6 to 7 per cent. Therefore, with us the certificate rate reached its headwater level at 3 per cent. Sometimes in the fall, when the currency is needed, you will pull the currency from some one else, and will possibly pay a good deal more than that for three or four months; that is, when you need it to move the products of the country.

Mr. JAMES. After this credit currency that you speak of goes out into circulation and gets into the hands of the people generally, why do you think that it would be returned for redemption? What would actuate the ordinary citizen to take it to the bank for redemption at once if it was current for all debt?

Mr. McCORD. Nothing, except that which actuates him in reference to all other currency—the protection for his pocketbook is better in a safe bank than in his home.

Mr. JAMES. Well, would not the ordinary citizen consider this money as good as any other?

Mr. McCORD. Yes, he ought to and would; and it would be.

Mr. JAMES. Why would he be going to the bank to redeem the notes?

Mr. McCORD. The ordinary citizen would not ask for its redemption. Let me illustrate it. Suppose a farmer goes up to Covington, 40 miles from Atlanta, and sells 5 bales of cotton. He gets \$250 for it at \$50 a bale, we will say. He pays his doctor; he pays for a horse; he pays for a bill of goods; he liquidates a debt. The doctor, in turn, goes and pays his bills to the merchant, and the merchant puts that currency into the local bank in order that he may send his check to Atlanta to pay one of his debts. The local bank forwards the currency to the center in order that it can create the exchange, and so you can not keep it out.

Mr. JAMES. But you proceed on that line on the assumption that the farmer is always in debt?

The CHAIRMAN. The point that you want to make, if I understand it, is that it is nothing more than a check?

Mr. McCORD. Absolutely nothing more than a check.

The CHAIRMAN. And the banker getting it in Covington sends it on to have it redeemed?

Mr. McCORD. Yes. Suppose he has paid part of that in legal-reserve money and part of it in credit notes. Both go along together. But when it reaches the bank, the bank takes care of the legal-reserve money in its vault and sends the other in for redemption.

Mr. JAMES. Suppose the farmer, after he gets hold of this credit currency, goes out and pays Bill Jones \$100 for a horse, pays a laborer \$40 for work he has done, and then pays debts here and there, do you suppose any of those people would go to the bank and ask for those notes to be redeemed?

Mr. McCORD. Not at all; but I say that it is the natural trend of trade and commerce that those notes will be redeemed.

Mr. JAMES. Could the banks in certain localities agree that they would not issue any credit currency and loan it out for a less per cent than they themselves might fix?

Mr. McCORD. No; that would be impossible. You can not fix a rate of interest. I have known communities that have tried that, and every time they tried it they got greedy and tried to bring the rates up a little higher, and then their neighboring towns came in and loaned money at a lower rate and knocked that scheme in the head.

Mr. JAMES. But suppose they would keep to the agreement and not be so greedy.

Mr. McCORD. It would be absolutely impossible, because there are plenty of men who have money ready to start banks where they are profitable.

Mr. JAMES. Then the stringency is not so great as you think.

Mr. McCORD. It is for the three months that I speak of—when the crops have to be marketed.

Mr. McCREARY. Is it not so that the advantage of the expenditure of \$750,000,000, say, to move the cotton crop, as stated by you, comes in the payment of moneys back from abroad, with the additional profits from the sale of the same and gives the balance of exchange in our favor, and therefore additional new money in the country drawn from abroad, which is the basis of prosperity?

Mr. McCORD. Absolutely so, sir. If you stop our cotton crop, gentlemen, your country would go broke.

There is one feature that I did not bring in, and that is the all-wise Providence is taking care of this prosperity better than we can, and for this reason, that the increase in the gold is what is taking care of the credits in this country. If it had not been for the increase of gold the banks of this country would have withdrawn almost all the money from circulation to protect the reserves in the banks. Figure it out; that is a matter of detail which you can all figure out.

The CHAIRMAN. What I understand your last statement to be is practically this: But for the amount of gold that came in during the last ten years we would have had no currency with which to do business; it would have all been in the reserves?

Mr. McCORD. Yes; nearly all, except your national-bank notes, which you can not hold as reserve.

Mr. WEEKS. I understood you to say that in the fall, when the cotton crop is being moved, you not only draw out your reserve in New

York, but you rediscount paper there, and possibly borrow money there in New York?

Mr. McCORD. Yes, sir.

Mr. WEEKS. Is not that a sufficient reason for carrying your surplus money there at other times of the year?

Mr. McCORD. Yes; I think it is.

Mr. WEEKS. You would not be able to get that money unless you did give the banks in New York good accounts.

Mr. McCORD. That is undoubtedly true.

Mr. WEEKS. That is a complete answer, I think, to that proposition.

Mr. McCORD. I think so, and then the further fact that you are obliged to carry those reserves there in order to carry on the commerce of this country. What would we do in drawing exchange on New York unless we had the money there? If we were required to keep all of our reserve at home it would contract the loaning value of this country, because if we are not permitted to carry a part of our legal reserve in New York or Chicago or other centers they would have to cut down the loaning power, because they take every national-bank note every day and redeem it, so as to get legals upon which to base their loans, and if this reserve was changed to carry it absolutely at home in the vaults you would absolutely lock up over one-half of our reserves out of the channels of trade and commerce, where that money is now used.

Mr. LEWIS. I might say here that most of the people in Georgia are bitterly opposed to national-bank issues. Would the American people be satisfied for the Government to permit these national banks to issue money, say \$200,000,000, paying only 2½ per cent interest a year; do you believe the Georgia people or the American people would be satisfied with that?

Mr. McCORD. I will answer that question by saying that immediately after our session here in November I went home and addressed a gathering of 400 men of the different trades of Atlanta at a board of trade meeting.

I showed to them that while this tax was only 2½ per cent that the reserves we had to carry against it—and rightly so, because there ought to be a reserve against the credits, just like it was a credit on the bank's book, because the money ought to be there to protect and pay it—that adding the interest on that reserve we had to carry made it cost us 3¾ per cent, or about that, and I satisfied their minds clearly, and a resolution was offered by another citizen, with which I had no connection, and that resolution was adopted unanimously by the chamber of commerce. In fact, the chamber of commerce of the city of Atlanta was the first chamber of commerce to adopt the proposition, I think. Am I correct, Mr. Secretary?

Mr. BRANCH. Yes, sir.

Mr. McCORD. The Atlanta Clearing House Association, of which body I am president, has adopted it. Mr. Wexler and I stopped off at Charlotte and we satisfied D. A. Tompkins there that our plan is a good one, that this proposition is correct, and there was absolutely very little profit to the bank. If you would like to have that on a 5 per cent basis to the Central Reserve City Bank there is a profit of 1½ per cent as we figured out.

The CHAIRMAN. That is money loaning at 5 per cent?

Mr. McCORD. Money loaning at 5 per cent.

The CHAIRMAN. Let me ask you a question. It is not exactly in the way of bringing to the surface any information about this bill, but your experience with reference to this proposition or these propositions since you left Washington. Have you met anyone and tried to explain it who has not been willing to accede to it?

Mr. McCORD. Not one. Every man that I have talked to has been fully satisfied before I got through with the explanation.

Mr. LEWIS. I will say that you have a great facility of explanation. You have made a very strong talk to us. But you were speaking from the side of the bankers and all that.

Mr. McCORD. The profits to banks in the central reserve cities would be $1\frac{1}{2}$ per cent. In the reserve cities, of which there are 29, the profit would be $1\frac{1}{2}$ per cent. That means keeping the money out. But to an interior bank, such as I represent, the profit is 1.93. Therefore you can not charge that this is a Wall street measure, because the central bank gets less profit than any other. There are only three cities that get $1\frac{1}{2}$ per cent—New York, Chicago, and St. Louis. The others will net $1\frac{1}{2}$ (those are the reserve cities), and the interior banks will net 1.93 per cent.

The Georgia people have been led to believe that silver was the panacea for all trouble, but I believe a great many of them are willing to kiss that idea good-by; that a great many more have opened up their minds to conviction by having right principles presented to them, and that a great many of those people are going to accept the statements of their local bankers, whose interests are identical with their interests, and assist in producing something that is more beneficial to them than it is to the bankers. Why? Because the banker can fortify his own position now by calling his loans and reducing credits and damaging the trade; but on the other hand, if he is permitted to use this credit currency just at a period when it will move and market his crops, and bring back the values and the liquidation of debts, in the payment of all obligations, in the creation of credit balances in banks, for which he feels perfectly safe, he does not care to tote money in his pocket, he does not want gold or anything else in his pocket, but he wants it in the good solvent bank of his county, the personnel of which is known to him, and he is perfectly willing to place his faith with them.

Mr. POWERS. As you pay 3 per cent on certificate money, do you not think that it would be easier to explain to your people of Georgia that this was to be fair and honest if instead of $2\frac{1}{2}$ per cent we would make it 3 per cent?

Mr. McCORD. Let me point out one disadvantage in that, if you please. I grant you that it is probably difficult to explain that at the present time, because they have not been educated up to it from a purely business, scientific standpoint; but if you increase that rate of interest to 3 per cent you lay a tribute and a greater burden on them in handling their product. There is another feature which enters into that. If you put the rate at 3 per cent, you give the Canadian bank the advantage all along our borders, because it does not pay any such rate—

Mr. POWERS. He pays no tax at all.

Mr. McCORD. He pays no tax at all. Mr. Forgan, of Chicago, feels him keenly in the competition for business.

Mr. POWERS. My experience with the Canadian banks—and I

have had some—is that their rates of interest are higher than ours as a rule.

Mr. McCORD. That is on a time certificate, Governor.

Mr. POWERS. They pay more and they charge higher for loans; their rate of interest on a loan is usually higher in New Brunswick and the maritime provinces than it is in Maine or Massachusetts. I have had experience in that and know about it, and I have made loans in both.

Mr. McCORD. Pardon me for reversing it, but is it possible for me to ask you a question?

Mr. POWERS. Yes.

Mr. McCORD. What is the rate paid in Canada on——

Mr. POWERS. A very common rate is 7 per cent. The government itself pays 3 per cent on deposits in the post-office.

Mr. McCORD. I hope the day will never come when we would do that.

Mr. POWERS. But the rate on a discount of a loan is 7 per cent.

The CHAIRMAN. You say it is very common, but what is the rule; is it 6 per cent?

Mr. POWERS. I think as much is loaned at 7 per cent as 6 per cent. I think the rates generally average about a cent higher than ours. Ours are 6, and sometimes 5, you know.

Mr. McCORD. They pay 4 per cent on certificates of deposit.

Mr. POWERS. Yes; they pay that in the provinces, and we pay 3 per cent.

Mr. McCORD. That is an increase in tax, not to the government, but the man who has the money to loan. They increase that tax on that certificate to 4 per cent, and the borrower has to pay the bank.

Mr. POWERS. That may be true——

Mr. McCORD. Therefore you keep the tax rate to $2\frac{1}{2}$ per cent, and the man who puts the certificate of money out puts it out at 3 per cent, and the rate will range at 6, but if you put our tax rate up to 3, and then the interest that you lose on the balance will carry it over 4, then we will not avail ourselves of the circulation, but will try to borrow the 4-per-cent money, and we will make the fellow who borrows it from us pay 7 per cent.

Mr. POWERS. I understand your position, but I do not think the fellow who borrows it will see it; I think he will be inclined to look at the $2\frac{1}{2}$ per cent as something in favor of the bank rather than in his favor, as but a small amount of the money you are loaning is really included in this asset currency. Therefore, for one, I have always been in favor of making this rate 3 per cent——

Mr. McCORD. Excuse me; any rate you may fix on this credit currency will have very little effect upon its redemption.

Mr. POWERS. I myself think it would have but a small effect, in that I think it will come in as all other currency does, in the natural course of trade; but I think some of it will continue out and that it will inflate the currency to some extent.

Mr. McCORD. Grant that to be true; then, taking the experience of forty years, the $2\frac{1}{2}$ per cent would turn into the General Treasury here in Washington 100 cents to meet it whenever it did——

Mr. POWERS. That is all right; but perhaps some of my constituents, like my friend from Georgia, who are accustomed to see this 3

per cent loan, might think it was a little favoritism to the banks if we would charge them $2\frac{1}{2}$ per cent for this.

Mr. JAMES. What is the usual rate of interest in Georgia now?

Mr. McCORD. In the city banks, in cities like Atlanta, Augusta, and Savannah, the ruling rate to a depositing customer who carries a satisfactory balance—you who are bankers understand what I mean by that—is 6 per cent.

Mr. JAMES. What is it to the outsider?

Mr. McCORD. For the last two months, probably, it has been 7 per cent in Atlanta, but the outside rate is 8 per cent. The rate in the country towns to the farmers for small loans, say, for loans of from \$100 to \$500, is possibly 1 per cent a month for a period of, say, nine or ten months.

Mr. JAMES. What is the usual rate of interest—

Mr. McCORD. Excuse me a moment. That is as long as he wants it. So he is paying 9 or 10 per cent for his money, whereas the rate is 12 per cent.

Mr. POWERS. What is the legal rate of Georgia?

Mr. McCORD. The legal rate of Georgia is 8 per cent. That is the contract rate. The legal rate is 7 per cent—that is, if no rate is mentioned it is 7 per cent. The contract rate is 8 per cent, and loaned on really above 8 per cent is usury and voids the securities.

Mr. WEEMS. I noticed in the report of the Comptroller of the Currency that they redeemed \$300,000,000 of these national-bank notes last year. Now, is it not a fact that the entire redemption was simply brought about by the sending in by national banks the notes of other banks—of turning them into lawful money that they could hold as reserves?

Mr. McCORD. What is the point in that?

Mr. WEEMS. Is not that a fact, that that is the only redeeming that is being done in the country?

Mr. McCORD. That is the only redemption, but there are two points in that—one is a retirement and the other is a redemption. This credit currency would be a retirement, absolute retirement; it would not be—

Mr. WEEMS. Allow me. Suppose that a national bank in New York City gets hold of some of these credit notes that your bank, for instance, may issue in the future under this law. They send them in for their redemption. Now, they can send them in for redemption just as the bond-secured notes are sent in for redemption?

Mr. McCORD. Yes, sir.

Mr. WEEMS. They would not have any other motive in the world for sending them in except the same motive that has made them send in the bond-secured currency in the past?

Mr. McCORD. Yes; they would.

Mr. WEEMS. What would that be?

Mr. McCORD. To keep down redundancy, which they dislike as much as anything else, because they pay 2 per cent on deposits and lend it at $1\frac{1}{2}$ per cent to get some benefits out of it, and they would do that to prevent this redundancy. There is quite a difference, because the other has the bond behind it.

Mr. WEEMS. How does it prevent redundancy if they send in one bill and get another back?

Mr. McCORD. That is the point I am making; the national-bank note now protected by bonds has to be kept out in order to get the 14 per cent on it, whereas the other is a different proposition; it would retire itself and get out of the way.

Mr. WEEMS. But I am not referring to something that might take place in the future whereby you might retire your own bank notes. That would of course diminish the total volume of currency. But I am referring to the action of the other banks in sending the money in for redemption; that action would work as to the credit notes the same as it does as to the bond-secured notes?

Mr. McCORD. It would work the same, but the incentive would be different, because they would have two objects in view, one to prevent redundancy, which they can not do under present conditions, and the other to retire the other bank's bills in order that theirs may stay out in the country.

Mr. WEEMS. Let me put a supposititious case. Suppose a New York bank got hold of \$10,000 of the notes of your bank. How could that New York bank do anything with the \$10,000 to prevent a redundancy or diminish a redundancy?

Mr. McCORD. Put them in for redemption and let them come home to us, and when trade and commerce did not need it we would take it out of circulation and keep it out.

Mr. WEEMS. But they would not have a motive in sending it to you; they would get \$10,000 lawful money——

Mr. McCORD. Yes.

Mr. WEEMS. And what would they do?

Mr. McCORD. They would loan it.

Mr. WEEMS. And they could have loaned your \$10,000 just the same?

Mr. McCORD. But right there you have made one condition at the present applicable to another condition at another time. Now, they would have a further incentive if this was a law to retire our bills and keep them retired, in order that they might put out \$10,000 of their own bills and reap the benefits that might come to them—not put out the legal; keep the legal for the reserve, but create the vacuum by retiring ours. It is a game of chess; I put the king here and you come up and I can not pass, and you put your king there and take mine up.

Mr. WEEMS. Suppose that the national banks of the country through some agreement issued \$317,000,000 more money, running their issues up to the full amount of their capital. What effect would it have upon the prices of United States bonds?

Mr. McCORD. What effect would it have on the entire United States?

Mr. WEEMS. On the price of bonds.

Mr. McCORD. To run their price up?

Mr. WEEMS. Yes.

Mr. McCORD. Under this bill?

Mr. WEEMS. I am speaking about the present law. Suppose that under the present bond-secured circulation the national banks of the country would undertake to issue up to the full amount of their capital. That would be \$317,000,000 more money. What effect would that have upon the price of United States bonds?

Mr. McCORD. It would run them up.

Mr. WEEMS. It would make the rates impracticable from any standpoint of price?

Mr. McCORD. Yes; and you know the reason they would do it. English consols at $2\frac{1}{2}$ per cent are selling at $86\frac{1}{4}$ ($2\frac{3}{4}$ per cent); United States twos are selling at $103\frac{1}{4}$ to 104. What is the cause of it? The cause of it is the circulation. The bankers of this country are not willing to put more money into a bond-secured circulation, because it inflates the price to where they would lose the profit; they are not willing to do it.

Mr. WEEMS. In other words, the amount of the bond-secured money out is largely determined by the pure arbitrary price of bonds?

Mr. McCORD. Not the arbitrary price of bonds, but the possibility of a loss.

Mr. WEEMS. The national bankers are keeping down the circulation in order that their bonds may be worth more?

Mr. McCORD. Absolutely no. We are floating the Government's paper to-day on a basis of 2 per cent, or $1\frac{1}{4}$ —I mean the real net profit to-day.

The CHAIRMAN. One hundred and four and $1\frac{1}{4}$.

Mr. McCORD. We are floating the Government debt to-day at a $1\frac{1}{4}$ per cent basis, whereas England's debt, paying $2\frac{1}{2}$ per cent, is at $86\frac{3}{4}$.

Mr. JAMES. But I understood you to say that the national banks did not issue up to the amount they could, because if they did it would affect the price of bonds?

Mr. McCORD. And would increase the possibility of a loss.

Mr. JAMES. Then they are failing to do that purely from a motive of gain to themselves?

Mr. McCORD. Not at all; but the protection of their interests.

Mr. JAMES. And yet they want the right to issue currency at $2\frac{1}{2}$ per cent interest, and refuse to issue them up to the right they have of issue because it will affect securities that they have got.

Mr. McCORD. Are not we in a position to-day that we are giving you more for your securities than you can get anywhere else?

Mr. JAMES. I do not know about that.

Mr. McCORD. Well, one other proposition. The bank I represent is issuing \$200,000 in circulation. If this bill passes, or if it does not pass, it does not affect my institution; it does not affect me; I am here from a patriotic standpoint. This would not affect my institution.

Mr. JAMES. I am not disputing your patriotism in being here at all, but I believe you do say that patriotism does not actuate this amount of money they could issue, but it is purely the motive of personal gain.

Mr. McCORD. Personal protection.

Mr. JAMES. One is synonymous with the other.

Mr. McCORD. There is quite a difference.

Mr. MCCREARY. How much do you think the bonds would increase if the circulation was increased \$317,000,000?

Mr. McCORD. I do not know. At one time 2 per cent bonds were selling at $110\frac{1}{2}$, and we sold out down to \$50,000 because we did not think it was safe.

Mr. McCREARY. That is the point I was coming to. If you were to increase to \$317,000,000 and had to pay 110 for the Government 2 per cent bonds, you would then stand to lose the difference between what you paid and what the bonds were actually worth in case the currency should again be contracted?

Mr. McCORD. Yes; that is the point.

The CHAIRMAN. The question, gentlemen, is whether the bank is called upon to be patriotic enough to lose from 10 to 20 per cent in order to issue circulation.

Mr. McCORD. Surely.

Mr. WEEKS. Suppose instead of selling your bonds at 110 you bought bonds at 110 and had taken out circulation and the bonds were now selling at 103; you have made a loss there that would wipe out your profit for five or six years.

Mr. McCORD. That is true.

Mr. WEEKS. And you would not be justified in doing that.

Mr. McCORD. I could not do that in justice to my stockholders; no.

Mr. HAYES. I want to ask, Mr. Chairman, in regard to the net profit that would come to these different banks in the reserve cities and to the country banks, did you figure in the cost of redemption and printing, and so on?

Mr. McCORD. The $2\frac{1}{2}$ per cent covers that point.

Mr. HAYES. I know, but the cost to the bank would be $3\frac{1}{4}$ per cent?

Mr. McCORD. Well, our declaration of principles sets up that there should be a $2\frac{1}{2}$ per cent tax to cover a guaranty fund to be created, the expense of the Bureau of Engraving and Printing and the whole proposition.

The CHAIRMAN. Two and one-half per cent covers all the expenses incident to it, but the additional cost is due to the value of the reserve.

Mr. McCORD. Yes.

Mr. JAMES. Then, if I understand you, if the banks should issue up to the full amount to which they are entitled it would jeopardize their interests?

Mr. McCORD. Yes, sir.

Mr. JAMES. Then you think the law is wrong that allows them to do that?

Mr. McCORD. No; I do not think the law is wrong, but a man would be a fool to take out up to the limit of the law.

Mr. JAMES. It is the law, but you say it would ruin the banks if they should do it?

Mr. McCORD. I could not, in justice to my stockholders, make such an investment.

Mr. WEEKS. The law is permissive, is it not?

Mr. McCORD. Yes, sir.

Mr. WEEKS. It is not obligatory to take out circulation?

Mr. McCORD. Certainly not; some banks have no circulation and carry \$50,000 in bonds.

Mr. McCREARY. The basic idea of this credit currency is for the congested period of trade, when you have to have \$750,000,000 in your business. The money is in the country but it is in different sections and you want to have a remedy so you can get a credit currency so as to give you money for that purpose?

Mr. McCORD. Yes; I do not want any expansion, but I do want the

privilege of converting a security that I have in one form into another form in order to meet the conditions just at certain times of the year.

Mr. McCREARY. Based on Government instead of clearing-house certificates in time of panic.

Mr. McCORD. That is it.

Mr. WEXLER. Gentlemen, there is a selfish motive for everything that happens except perhaps the very small number of acts of a very few philanthropists that exist in the world to-day. The present circulation of national banks compared to their capital is five-eighths of the total. There must be a reason, therefore, why banks have not taken out their full amount of circulation, when there is a profit, even as small as it is, of 1½ per cent. The reason is this: There is in existence at the present time only a little over \$900,000,000 of Government bonds. Of that amount \$216,000,000 are redeemable between now and August 1, 1908. Fifty-three million dollars about will be redeemable July 1, 1907; they will fall due at that time.

Now, if the banks attempt to take out the full amount of circulation, namely, about \$850,000,000 all told, as against \$520,000,000 at the present time, it is likely, as Mr. McCord has stated, that the price would go up to about 110 on 2 per cent bonds, if they could get them at all. But, admitting that they would get them at 110, the actual gain on \$100,000 of that circulation would be about \$340 on every \$100,000, that would be the actual net gain to the bank. Of course no bank in justice to its stockholders or depositors, if it wants to remain a safe institution, can afford to handle \$100,000 at a profit of \$340 for the purpose of supplying merely a circulating medium.

That gain comes about in this manner: If you pay 110 on \$100,000 worth of bonds, you lose—figuring on a 6 per cent basis—6 per cent on the \$10,000 premium you have put up; that is, \$600. You pay one-half of 1 per cent on twos. That is \$500. Presume the bonds run ten years, you lose about \$500 a year premium. This gives a total of \$1,600 expense on the bonds, or \$2,000. You get 2 per cent, which is \$2,000. You have a margin of \$400 for the expense of redemption, and usually it is figured at 81 cents per thousand. That is the cost of issue and redemption. So you can see that you would be nearly wiped out and there would be little or nothing in it whatever.

The CHAIRMAN. How would it figure out if they lent the money at 7 per cent?

Mr. WEXLER. If they lent the money at 7 per cent of course the gain would be very much less. So you can see that it is not practical at all. As I have said, there are not the Government bonds available, and if we went out into the market to-day to buy Government bonds to increase circulation we would put their price up to a figure which would be entirely unreasonable. So, I say it is physically impossible to increase this circulation above the five-eighths which we have at the present time.

Mr. McCREARY. This question of loss does not take into account the jeopardizing of your loans?

Mr. WEXLER. No; we do not figure that at all.

Mr. WEEMS. You have to assume in your conclusion that you have to pay 110 for the bonds and then you go on the further assumption that when you wanted to sell them to the Government they would have gone down.

Mr. WEXLER. My dear sir, every day they approach maturity you have to cut off the percentage that the premiums bear to the number of years the bonds run; that is fundamental. If we have twenty-year bonds we have to charge off one-twentieth every year from the premium value of those bonds, because every year they get nearer their maturity. If I pay 120 for a bond and it has twenty years to run, the first year I have to reduce the price one-twentieth.

Mr. WEEMS. Is there an agreement between the national banks that they will not take out more than five-eighths?

Mr. WEXLER. Not at all, sir; many banks have 100 per cent. When bonds got to 104 or 104½ we stopped taking out circulation.

Consequently the amount of circulation we issue has no relation to the needs of commerce, but purely in reference to the value of Government bonds. It is simply a question of calculation as to whether it will pay or not.

Mr. PRINCE. Mr. Chairman, I move that we adjourn until to-morrow morning at 10 o'clock, at which time we will hear from the other members of the commission and such other gentlemen who are present and wish to be heard.

The motion was agreed to; and thereupon (at 4 o'clock p. m.) the committee adjourned.

HOUSE OF REPRESENTATIVES,

Wednesday, December 12, 1906.

The committee met at 10.30 o'clock a. m., Hon. Charles N. Fowler in the chair.

The CHAIRMAN. Gentlemen, we will first have the pleasure of hearing from Mr. Perrin, president of the American National Bank, of Indianapolis.

STATEMENT OF MR. JOHN PERRIN, PRESIDENT OF THE AMERICAN NATIONAL BANK, OF INDIANAPOLIS.

Mr. Chairman and gentlemen of the committee, the chief elements of our currency, stated in round numbers, are:

Gold, or the certificates representing it.....	\$1, 500, 000, 000
Silver, or the certificates representing it.....	500, 000, 000
Greenbacks	350, 000, 000
Bond-secured bank notes.....	500, 000, 000

Gold is not now under discussion. The silver was injected through unwise laws which well-nigh threw the business of the country into utter confusion before their repeal. The greenbacks were devised under the pressing necessities of the civil war. In the discussions in Congress at the time the minority branded them as the last resort of bankrupt governments, inevitably followed by disaster. It was urged that if any other expedient were used something else might then be tried, but that the resort to legal-tender fiat money left no other expedient possible. The first was a temporary issue of \$5,000,000, but the presses were kept going until \$450,000,000 had been issued. When urged to increase the amount Secretary Chase declared that additional issues would be a positive calamity. The notes depreciated until they were worth 40 cents on the dollar. It has been estimated that by reason of these issues the war cost one thousand million dollars more than if the currency had been maintained upon a sound basis.

The country had not been devastated and impoverished, but was enormously rich, with ample ability to furnish the means necessary for the conduct of the war. Congress voted in 1868 that they should be retired at the earliest practicable date, but when about \$100,000,000 had been retired, further reduction was discontinued. They were a costly mistake in the beginning and have so continued. The disastrous part which they played in the endless chain of redemption a decade ago is still fresh in our minds.

Japan has recently illustrated how a war may be fought without impairing the currency. In the Franco-Prussian war, with the Germans occupying Paris, the credit notes of the Bank of France were at only a fractional discount, and France, after the war was over, borrowed money at 6 per cent to repay the bank loan running at 1 per cent. Our own method has been in strikingly unfavorable contrast.

The bond-secured bank notes are also due to the unfortunate financing of the war. The national-bank law was not enacted to provide a good banking and currency system, but simply to make a market for bonds. The requirement for joining the national banking system was the purchase of specified amounts of Government bonds, and the inducement was the profit from issuing notes based upon them. The enactment of this law stopped forthwith the evolution then well under way of a scientific banking and currency system, which would have made it both possible and probable that at the present time we would be the greatest financial power in the world. Instead, our commerce has been handicapped all these years by the perpetuation of these results of mischance and mistakes.

No one of these three elements of our currency owes its origin to any carefully wrought plan to devise a good currency system, and there is nothing in their origin or character to suggest a reason for reluctance in seeking to better our present system.

FAULTY OPERATION.

Lawful or reserve money, so called, consists of gold, silver, and greenbacks. National banks are required to carry reserves against deposits:

In central reserve cities (New York, Chicago, St. Louis), 25 per cent in lawful money.

In reserve cities, of which there are about forty, 25 per cent, of which one-half must be lawful money, while the other half may be deposited with reserve agents in central reserve cities.

Outside of reserve cities, 15 per cent, of which 6 per cent must be lawful money, and 9 per cent may be deposited with reserve agents in reserve and central reserve cities.

When the harvest time arrives, experience proves that the farmer, to a considerable extent, uses actual cash in paying his help, for supplies, etc. It is estimated that for this purpose from one hundred and fifty to two hundred million dollars is sent from the centers every fall. If the movement of this currency from the banks to the pockets of the farmer is traced, it will be found somewhat as follows, assuming for the illustration that minimum reserves are carried:

In a country bank having \$100,000 deposits the reserve would consist of \$6,000 lawful money on hand and \$9,000 credit with reserve agents. If \$5,000 is paid to farmers on a given day, the bank has

thus reduced its deposit liability to \$95,000 and its lawful money reserve to \$1,000. To replenish this cash reserve it calls upon its reserve agent for \$4,700 lawful money and must then contract its loans \$4,250 in order to bring the total reserve to \$14,250, the required 15 per cent of the \$95,000 deposit liability remaining.

In this transaction the reserve city bank, having parted with a portion of its lawful money reserve, must replenish by calling upon the central reserve agent for lawful money, and must also contract its loans until its total reserve equals 25 per cent of its remaining deposit. The central reserve bank has also parted with a portion of its lawful money reserve and must also contract its loans until its reserves are equal to 25 per cent of its remaining deposit. This duplication of contraction brings about a total contraction of credits throughout the country equal to four or five times the amount of money actually finding its way to the pockets of the farmer, so that if \$150,000,000 is required to help in the crop movement there results a contraction of credits throughout the country of from six hundred to seven hundred and fifty million dollars.

After the crop movement this money finds its way back again into the banks. If a farmer deposits in the country bank \$1,000 of lawful money, only 6 per cent of it is required to be kept as cash reserve, and \$940 is shipped for credit of the country bank to the reserve city bank, with which \$90 must be kept, so that the total reserve against the \$1,000 deposit is \$150. The country bank can loan \$850 of the \$1,000 thus deposited. The reserve city bank receiving the shipment of lawful money retains the portion required for reserve and forwards the remainder to the central reserve city, expanding its loans, and the central reserve city in turn expands its loans. When lawful or reserve money thus accumulates in the financial center the competition to lend often results in extremely low rates, which foster expansion and speculation, the ultimate consequences of which are apt to be even more disastrous than the preceding contraction. This unnatural and artificial expansion, with its enforced speculation and the equally unnatural and artificial contraction, each attended by grave risks, are due to the fact that the volume of our currency is fixed and rigid.

ELASTICITY.

In investigating the currency systems of various countries there appear two factors, one variable the other constant. In our own system the volume of the currency is the constant factor, the interest rate the variable one. In countries having a currency the volume of which is determined by the business requirements the constant factor is the rate of interest, the variable one the volume of currency. It needs no argument to prove the vast advantage to commerce of steady and moderate interest rates. Our problem is to find a safe and practicable way by which the alternate scarcity and redundancy of currency may be avoided. Other countries have attained this through the use of credit bank notes, which are a general obligation of the issuing bank without a pledge of specific security, with adequate reserves, and with facilities for prompt redemption. Such notes have been used in many countries and tested under extremest conditions. In every instance notes of this character have shown automatic adjustment of volume according to the varying business requirements and have always demonstrated their safety. It is noteworthy, on

the other hand, that no instance can be found of an elastic, bond-secured currency.

After the unification of the German Empire it was determined to devise a thoroughly scientific currency system. The heterogeneous burden of silver was sold as merchandise. Germany's currency now consists of gold and credit bank notes, with the exception of \$30,000,000 imperial notes, against which a like amount of gold is held as a war chest. Five banks issue such credit notes and may issue a total of \$130,000,000 without tax. Issues beyond this amount are taxed 5 per cent per annum. Through constant daily issue and redemption the volume of such notes is exactly adjusted to the business needs, just as is the volume of checks, drafts, etc. Under such conditions redundancy is impossible. When notes are issued beyond the limit without tax it is not because of any emergency, but simply in response to commercial demands because of an unusual number of transactions, usually at the end of the quarter, when the number of settlements makes a large aggregate. Through the daily redemption in the ordinary course of business such excess of notes is quickly retired, usually within a week. The tax is absolutely without influence in driving them in. If they stay out it is simply because they are needed. The business transactions in which currency is required are normally carried on with the credit bank notes, which bear no tax at all.

The credit notes of the Bank of France are not taxed, and the limit of the authorized issue is set so high, more than one thousand million dollars, that it has never been reached, because the business transactions have never required so large a volume. The volume fluctuates daily, hourly, and adjusts itself exactly to the needs of commerce through the constant issue and constant redemption. There is never a scarcity and never a redundancy.

In Canada the conditions more nearly resemble those of this country, owing to the wide area and less dense population. The credit notes of the Canadian banks are taxed only to maintain the guaranty fund, a fraction of 1 per cent. The limit of authorized issue, 100 per cent of capital, has never been reached. There is a marked increase in the amount of notes outstanding every spring and every fall, and an equally marked decrease in the amount outstanding at other periods, those in use being exactly the quantity required for the business transactions, determined by the constant daily issue and redemption. There is never a scarcity and never a redundancy.

The currency system of Scotland is along similar lines. The effectiveness of the automatic adjustment of the volume through the daily issue and redemption is shown in the fact that the total volume of the Scotch currency is redeemed every eighteen days, and that of the Canadian currency every thirty days. In contrast with this, the total volume of the bond-secured notes of this country is redeemed once in two years, there being practically no incentive for such redemption, and no adequate redemption facilities are provided.

PRECEDENTS IN OUR OWN HISTORY.

Our own history prior to the civil war gives several excellent illustrations of good currency. The notes of the two banks of the United States were credit notes. Also those of the State Bank of Indiana, the State Bank of Missouri, and others, all unquestionably

safe, and the volume automatically adjusting itself to commercial needs. It is stated that the State Bank of Louisiana was redeeming its notes at par in gold when General Butler occupied New Orleans during the civil war, a striking illustration of the soundness in principle of notes of this character.

The State Bank of Indiana and its successor, the Bank of the State of Indiana, are still pointed to as almost models. Their issues were pure credit notes the same in principle as those now recommended. Experience demonstrated their absolute safety and admirable fitness for commercial needs during a period of thirty years, under conditions which can not be claimed were more favorable than now in stability and security. It is interesting to compare the conditions of issue of these credit notes with those now recommended by the currency commission: Authorized issue, 200 per cent of capital, as against 25 per cent of capital, disregarding the issue subject to 5 per cent tax which could seldom be availed of; no tax on the State bank's notes (except 1 per cent on notes under \$5), as against $2\frac{1}{2}$ per cent tax; no guaranty fund, as against a guaranty fund in the Government's hands more than ample to pay the notes of failed banks; reserves according to the judgment of the managers varying from 20 per cent to 40 per cent, as against the legally required reserves the same as against deposits; no examinations on the part of the State, as against semiannual examinations and five published statements each year; redemption over the counter, as against redemption over the counter and through numerous redemption clearing houses, with transportation free of cost to the shipper.

The redemption money of the State bank was at times silver, at times gold, at times included greenbacks, according to the bank's advantage. Yet, in spite of the insufficient means of communication and transportation, and the large authorized issue of untaxed notes, the notes did not stay out unless needed, the volume automatically adjusting itself to the business requirements through daily issue and redemption, and there was no inflation.

Our present problem has its special difficulties on account of the development of our system of national banks, consisting of more than 6,000 separate independent institutions. But we have in our own history one excellent illustration of the operation of a credit currency under such conditions. The banks of the New England States devised a system for redeeming their credit notes through the Suffolk Bank of Boston. At the maximum there were more than 500 banks in this system, organized under the various laws of half a dozen different States, some authorized to issue only to 65 per cent of capital, others up to 300 per cent.

There was no uniformity of incorporation, no central regulation and supervision, no guaranty fund to pay the notes of failed banks. For forty years, from 1825 down to the time of imposing the 10 per cent tax on State bank notes, this system operated admirably. In spite of the inadequate means of communication and transportation the redemption was so active that a note on the average stayed out only forty-five days. The authorized issue of these 500 banks aggregated \$135,000,000, but the maximum amount ever outstanding was \$44,000,000. These credit notes were not taxed, but a tax of one-eighth of 1 per cent per annum would have paid all the notes of the failed banks. So good were they that a tax of 2 per cent for a single

year upon the maximum amount outstanding would have paid the notes of failed banks for the entire forty years.

The correctness of the principle of the credit note is certainly well supported by the fact that wherever and whenever they have been used they have always demonstrated their safety and special fitness in the automatic adjustment of their volume to the varying business needs. It would seem that we could view with full confidence a limited issue of credit notes by the national banks, under Federal control and supervision, with reserves the same as against deposits, with a guaranty fund in the hands of the Government ample beyond question for the payment of notes of failed banks, and with ample redemption facilities.

OPERATION OF CREDIT-NOTE CURRENCY.

Credit notes are the same as a deposit liability. To illustrate: Take a bank with \$100,000 deposits in open book accounts. If upon a given day \$10,000 of deposits in open book accounts are exchanged for the bank's credit notes, at the close of that day's business the bank's ledger shows \$90,000 open deposit accounts, \$10,000 credit-note liability, the same total of \$100,000 demand liability, with the reserve undisturbed. If notes thus paid out should go into the farmers' pockets at the crop-moving time, it is obvious that such a method would protect the bank reserves and so prevent the reduplicated contraction now enforced by our present currency system. After the credit notes had served the purpose for which they were issued they would gradually find their way back into the banks and promptly be presented for redemption, thus being taken out of the currency in use and so preventing expansion now enforced under such conditions by our present system. When a bank pays a check with its credit notes it is simply exchanging an open book account into a deposit liability of such form that it will pass current from hand to hand.

A holder of a bank's credit notes presenting them for deposit simply expresses thereby his preference for that form of the bank's liability, against which he may draw checks. In either form the liability of the bank is the same. The credit notes, however, are safer than an open book account by reason of the guaranty fund in the hands of the Government more than ample to pay the notes of all failed banks. This possibility of exchange at will of one form of a bank's liability into the other is the only method thus far devised of providing elasticity, which means increasing or diminishing the volume of currency, just as the volume of checks, drafts, etc., is increased or diminished according to each day's transactions. With a greater demand from increased business transactions, the volume of currency automatically expands. With a lessened demand, because of diminished transactions, the volume of currency automatically contracts. In the operation of a perfect system of this character there would be no contraction of credits, no expansion or inflation on account of a fixed, rigid volume of the currency, such as we now have; reserves would be undisturbed, all ordinary commercial transactions requiring currency being handled, not with money but with these credit instruments. Commerce being free from violent artificial expansions and contractions, there would result steadier and lower rates of interest, with greater stability in business conditions.

With due regard to existing conditions we can only endeavor by small steps and trials to gradually work a satisfactory system out of our present inadequate patchwork. It is not expected that the currency commission's recommendations, if enacted into law, would achieve an ideal. They contemplate simply a short, conservative step toward a better condition.

SAFETY.

During the forty years operation of the national-bank system the banks which have failed had outstanding at the time of failure something over \$17,000,000 of bond-secured notes. The assets of these banks realized 78 per cent. of the total liabilities. If these notes had shared ratably with other liabilities, the total net losses upon bank notes would have been less than \$5,000,000. The tax upon circulation—1 per cent up to March, 1900; since then, one-half per cent—has realized upward of \$90,000,000, more than eighteen times the amount required to cover such losses. With the proposed taxes of $2\frac{1}{2}$ per cent and 5 per cent, constituting a guaranty fund to pay the notes of failed banks, and with the same reserves required as against deposits, these notes would be safe beyond peradventure. Further proof of safety is had in the invariably successful operation of such a currency in other countries and in our own earlier history.

TAX.

Preference has been expressed for a high tax, and that the credit note issues should come into existence only when a crisis arises. Assume authority given for an emergency currency to be taxed 5 or 6 per cent and otherwise the method that proposed by the currency commission. Counting the reserves, the cost to the issuing bank would be $6\frac{1}{2}$ per cent if the tax were 5 per cent; 8 per cent if the tax were 6 per cent.

Obviously this would restrict the issues to panic periods. It is interesting to trace the probable operation. Suppose a depositor presents a check and is paid in notes to which he is unaccustomed, and which he knows cost the bank the rate indicated, and which he also knows are reserved for extreme emergencies, could he fail to take alarm upon such an authoritative declaration of a panic condition? Instead of accepting such notes, is it not probable that he would not only refuse them in payment of his check, but that he would withdraw his balance?

It would seem that such an issue not only would not relieve a strained situation, but would immediately precipitate the condition which the so-called emergency currency would have been devised to avert.

It has also been suggested that notes be used indistinguishable in appearance from the present bond-secured notes, authority being given to issue in excess of the par value of the bonds, a tax of 5 or 6 per cent being imposed upon such excessive issues. This would create less immediate alarm, but an analysis of statements published upon the Comptroller's call would at once disclose the fact if such issues were outstanding, and unfavorable reports would quickly circulate regarding the banks issuing such notes at high cost. The ultimate effect could hardly be different from the illustration first given.

The objection to a graduated tax is much the same as to the high tax. An analysis of statements would quickly disclose it if banks were issuing notes taxed at 4, 5, or 6 per cent, and inferences proportionately unfavorable would quickly be made and the unfavorable news rapidly spread.

The imposition of a graduated tax or a high tax brings in this element of hazard at a time when the operations of the currency should allay apprehension instead of arousing it. Prudence suggests that a panic condition is not an appropriate time for untried experiments coupled with such obvious risks.

The difference between a low-taxed credit currency and a high-taxed emergency currency is very fundamental. One is a tool of daily commerce, the use of which tends to prevent a panic condition, the other is simply a panic cure. One seeks constant good health of the patient through proper diet and regular exercise, the other defers treatment until the fever reaches the danger point. It is sought with a low-taxed currency to automatically adjust the volume to the daily current needs. The method of adjusting the volume of a high-taxed currency would be through retirement by deposits of lawful money with the Treasury, but where reserves are drawn upon to make such deposits of lawful money, there is inevitably a contraction of credits of four or five times the amount that the reserves are thus depleted. Such a method would seem to infuse an artificial element of constant disturbance, a sort of chills and fever, that would be most undesirable.

The German currency has been cited as a precedent for a tax of 5 per cent, but such reference to it does not seem to take into account the wholly untaxed issues, aggregating \$130,000,000, which serve the purpose of ordinary commerce. When the limit of untaxed issues is exceeded it is not because of a panic, but because of some large aggregate of transactions, as at the end of the quarter. The high tax also is not the influence which drives the notes in. There is no deposit of redemption money for retirement. The daily redemption, under ordinary circumstances, quickly brings the outstanding volume within the limit of the untaxed notes. It will be noted, therefore, that the currency commission's recommendations are for much heavier taxes than in the German plan. It is my personal opinion that greater elasticity would result with lower taxes than those specified.

These recommendations are not based upon theory, but upon successful precedents in the currency systems of other countries and upon successful precedents in our own history. So far as I know those advocating a so-called "emergency currency" with a high tax cite no single instance in the history of the world where such an issue has ever been used, either successfully or unsuccessfully.

PROFIT.

Objection is made that the enactment into law of the currency commission's recommendations would give the banks large profit. Competition finally determines the profit in banking as in other lines of business. Assuming that the entire authorized issue could be kept out constantly, which would be an impossible condition, the maximum profit to the bank with a million dollars capital would be \$5,000 per year, with a 6 per cent lending rate. If the outstanding issues average 50 per cent this would be reduced to \$2,500 per

year, taking no account of the expenses incident to putting out such issues. Surely this is not so important as to warrant an effort to eliminate it by resorting to an untried and perhaps economically unsound plan.

In referring to the possible profit it is said that the banks would lend these notes and so derive as profit the difference between the tax rate and the interest received. If this is correct, it follows that the borrower would retain such notes and use them again for paying his obligation at its maturity. The fact is, however, the bank lends credit, currency is used only in carrying out the details of such transactions. If the borrower were paid the amount of his loan in credit notes, it would be the same in principle as if he had been given a cashier's check. He would probably use the notes immediately, and it might easily transpire that the bank would be obliged to redeem the notes within twenty-four hours. Accurate analysis clearly discloses the fallacy in the suggestion that credit notes themselves are loaned. They are simply a means for carrying out the details of credit transactions.

Currency is simply a tool of commerce, and is required to the extent of only about 5 per cent, on the average, in business transactions, including loans, deposits, and withdrawals. The deposit and check system is highly developed in cities, thus requiring small use of currency. The interior uses a far larger proportion of currency in its transactions.

WALL STREET AND CREDIT CURRENCY.

Wall street has no use for currency of any kind; its currency is certified checks. Following through a single hypothetical transaction will make clear that Wall street could not use a credit currency in its operations, and that such a currency would be of no avail for speculation there. Suppose a Wall street borrower were given the proceeds of his loan in credit notes. He would use them the same day either in liquidating a loan at another bank or in payment of securities. The receiving bank would immediately send the notes to the redemption agency in order to secure lawful money for them, so that the issuing bank would receive the notes the following day. Further evidence of the truth of this is shown in the fact that even our bond-secured notes do not now circulate in Wall street. The only opportunity that a Wall street bank would have for issuing its credit notes would be upon calls from the interior, at such periods as the crop-moving time.

If burdens are imposed upon banks, the final incidence is upon the customers. If benefits are extended, customers ultimately benefit proportionately. Banking, as all other business, is founded upon a selfish desire for profit. In no other business are there such vast transactions with such small margins of profit. Banking is a matter of eighths, quarters, thirty-seconds, and sixty-fourths.

When it is suggested that bankers should be patriotic enough to forego profit in order to provide against stringencies, no suggestion is made that the farmer should show his patriotism by deferring the harvesting and marketing of his crops because of the added burden upon the currency; nor that the merchant lacks patriotism because he buys a large supply of goods to exchange for the farm products; nor that the manufacturer should reduce his operations because the with-

drawal of the money for his pay rolls adds to the strain in the time of stringency. In normal times bankers, like all other business men, seek profit, but bankers yield to no other citizens in patriotism when the nation is in need.

REDEMPTION.

If this currency is to be regarded as a daily tool of commerce, the profit to the banks is a most important factor in furnishing the incentive for speedy redemption. A bank presenting \$1,000 of a competitor's notes for redemption would secure \$1,000 of lawful money, which would serve as a reserve against \$4,000 of its own notes. If it is profitable to issue the notes, no bank would ever pay out a competitor's notes, but would constantly seek to withdraw them from circulation in order to pay out his own instead. The lower the tax the greater the incentive for issue, and exactly in proportion the greater the incentive for forcing in competitor's notes for redemption. The higher the tax the more this incentive is destroyed. With ample redemption facilities the proposed notes, as they find their way into the various banks, would not be held overnight any more than are checks and drafts.

This constant competition for each bank to issue its own notes and retire those of its competitors would make it impossible to keep out any greater volume of credit notes than actually required for the business transactions. No bank would have occasion to concern itself about getting in its own notes. The competitors would see to that, in forcing daily redemption. This method of operation is not hypothetical, but based on experience in the precedents cited.

INFLATION.

The fear is expressed that the proposed credit notes would become a permanent addition to our circulation with resulting inflation. In this, experience is a valuable guide. Without multiplying illustrations, that given in the Suffolk bank system is perhaps most valuable as being most analogous. With the far inferior means of communication and transportation of fifty years ago, the five hundred banks of the Suffolk system with an authorized issue of \$135,000,000 never succeeded in putting out a greater amount of notes than \$44,000,000. The contemporary comment, too, was the highest commendation. Inflation inevitably follows a debased standard, but with credit notes easily convertible into lawful money, with abundant redemption facilities, and with the incentive of profit to competing banks in forcing such redemption, the use of these notes could no more bring inflation than the issue of checks and drafts to such amounts as suffice for the business needs.

At the present time, when the use of currency lessens, the accumulation first appears in the small interior banks. The excess is shipped to near-by reserve agents and from them to central reserve cities, and so finally to the financial center. This is now done at the expense of the shipping banks. It is proposed that the credit currency may be shipped to redemption agencies without expense to the shipper. That currency will always be shipped which costs least for transportation. The moment when such notes are shipped to a redemption agency they are out of circulation just as surely as if they had been burned, and they can only be put out again as opportunity

offers. If there is a diminishing use of currency, obviously the opportunities for issue diminish accordingly.

It is suggested that if such notes lodge with trust companies and State banks they would be as available for reserves as lawful money, and so would not be presented for redemption. To a certain extent that is undoubtedly true, but with currency accumulating, shipment free of transportation cost is equally open to individuals or State banks, and any bank desiring to ship currency to a center and having no credit notes for the purpose would canvass all the banks in its town in order to effect an exchange of lawful money for credit notes that it might thus avoid the cost of express charges in shipping. If otherwise unobtainable a premium would be paid for them, representing a certain part of the express charges, as the shipping bank would profit by any portion of the express charges that might be saved.

It is argued that the issue of credit notes subject to a tax of $2\frac{1}{2}$ per cent would yield a profit, and that consequently banks would "put out" their full authorized issue of such notes and keep them out, thus causing inflation. If this reasoning is sound it follows logically that any form of currency costing not more than $2\frac{1}{2}$ per cent per annum would be "put out" and kept out. As commercial banks generally do not pay over 2 per cent on deposits the present forms of currency when deposited consequently cost less than the proposed tax of $2\frac{1}{2}$ per cent. Why, then, should there ever be redundant currency of any kind? Why should there ever be shipments of currency from the interior to New York? If the point is well taken the interior banks are pursuing a blindly stupid method in paying express charges on currency shipments to New York in order to secure a deposit credit at 2 per cent instead of "putting out" the currency at 6 per cent. And when such currency reaches New York banks why do they not "put it out" instead of allowing it to accumulate?

Analysis discloses the incontrovertible fact, however, that as the currency on hand in New York banks increases the loans expand, and as the currency on hand diminishes, as it is "put out," the loans contract. The fundamental fact seems to be overlooked that in expanding loans it is credit which is "put out" and not currency. The amount of loans—credit "put out"—is limited by the amount of deposits, and against deposit liability lawful money is held as reserve; so the amount of loans—credit "put out"—is in proportion to the lawful money on hand and not to that in circulation—that which has been "put out." The fallacy of the point urged is shown in this because the loans, or credit "put out," would otherwise be in proportion to the currency "put out."

It is further proof that in expanding loans it is credit which is "put out" and not currency; that a higher interest rate offered for loans attracts reserve money from one continent to another, not to be "put out," but to serve as the basis for "putting out" credits.

If credit notes are loaned, it would logically follow that the borrower would retain them until his obligation matured and then return them. If, however, he were given the proceeds of a loan in credit notes, the actual process would be that he would promptly part with them in making payments for which he negotiated the loan, and the issuing bank, instead of having loaned its credit notes, would be called upon to redeem them in lawful money, possibly within twenty-four hours.

Nor would such notes, as in the case of lawful money, serve as the reserve against deposit liability and so become the basis of credits. They are themselves the deposit liability and require lawful money reserves as their basis.

If currency now accumulates in the banks at certain periods it is simply because it is not needed in business transactions, and no amount of effort will keep it out if not needed. Exactly so with these credit notes. If not needed for business transactions no amount of "putting out" will keep them out. Like other forms of currency, when not needed they will go into the banks. But then, contrary to the operation of our present currency, the volume of which remaining fixed forces the artificial "putting out" of credit, they will disappear by redemption, thus automatically adjusting the volume to actual requirements. When these notes were "put out," however, it would be instead of lawful money, and so credits would not be contracted as now occurs when lawful reserve money is "put out;" and when they would persist in refusing to stay out their accumulation could not cause an expansion of credits and redemption would take them out of existence.

Currency of all kinds is simply a tool of commerce. No matter what its form, it can be "put out" only in response to business needs, whether it is taxed or untaxed, and no amount of effort can keep it out unless required for business transactions, whether it is taxed or untaxed.

EFFECT UPON THE RATE OF INTEREST PAID ON DEPOSITS.

In the hearing before this committee the point has been raised that the use of a credit currency yielding profit to the issuing banks would serve to reduce the interest now paid on savings deposits and time deposits.

Practically the only opportunity for a bank to issue credit notes would be through the payment of checks. The greater the volume of deposits the greater the volume of checks. It would seem that the effect would be that a competition for deposits in order to increase the possibility of issuing credit notes would certainly not lead to a reduction in interest that might now be paid, but rather have a tendency in the opposite direction.

LOANS IN WALL STREET BY INTERIOR BANKS.

The question has also been raised during this hearing why an interior bank would lend money in Wall street, the inference being that the bank's local customers suffer thereby. It is clear that a bank's largest profit lies in attracting to itself as many local customers as possible, not only by its strength, but by meeting their legitimate loan requirements under all conditions. If a bank should restrict the accommodation extended its customers in order to lend at high rates in Wall street, it would very quickly lose customers to competing banks operating differently. A high rate received temporarily would be small compensation for the permanent loss of business. If an interior bank loans on call in Wall street, the primary object is to have immediately available funds in excess of the required reserves with which to accommodate local customers. Such loans even if running at 25 per cent would unhesitatingly be called in order to accommodate a local customer at 6 per cent.

INTERESTS AFFECTED.

This is not essentially a bankers' problem, but a problem of other business men. Whatever additional cost to commerce by reason of our present system, that cost must ultimately fall upon the bank's customers. There is the keenest interest in developing every facility of production and every betterment of transportation. As a tool of commerce the currency is inferior in importance only to these. If this were fully realized, the demand for a better currency system would be so imperative that the problem would be promptly solved.

The crude tools fashioned under the stress of war and through error now hamper our commerce and constantly menace grave disaster. It is the part of conservative wisdom to make investigation and devote persistent and effective attention to perfecting our currency system. No one thing is of such vital importance to-day to our commercial interests.

I thank you, Mr. Chairman and gentlemen, for your courteous attention.

Mr. WEEKS. What is the incentive for redemption?

Mr. PERRIN. The incentive for redemption must be some advantage accruing to the note holder. The individual would probably have little interest in presenting a note for redemption. A country bank's incentive would be to relieve itself of accumulating currency and convert it into a credit with a reserve agent by shipping to the redemption city without cost of transportation.

In redemption cities there would be the incentive for each bank to send in notes for redemption in order to offset those presented against itself, and to avail itself of the opportunity to ship to central redemption cities such accumulations of currency as might be forwarded without expense for transportation, and the further incentive of securing lawful money for reserve.

In central-redemption cities a bank would have the incentive of presenting notes to offset those presented against it, and also to exchange credit notes for lawful money.

Mr. POWERS. Do you think that the bank receiving some of these credit notes issued by some other bank would immediately ship them for redemption rather than pay them out?

Mr. PERRIN. In order to avail itself of the profit in issuing its own notes each bank would be impelled to force the redemption of competitor's notes.

Mr. POWERS. Would there not be something of a loss in these shipments to a redemption place? Would you not lose the interest, especially if a bank was located at some distance?

Mr. PERRIN. There would be the same loss of interest as in forwarding a check or draft.

Mr. GILLESPIE. You have referred to the apprehension which would be aroused through the notice given in paying out a panic currency. Could not that be obviated by not showing on the face of the note that it was currency of that kind?

Mr. PERRIN. Yes; the notes could be made similar in character, for instance, to the bond-secured notes, but the publication of a statement would show the amount of high-taxed notes outstanding.

Mr. GILLESPIE. And will not the statement also show that the money reserves of the bank are not affected in the least by this outstanding note liability? While it shows a high tax, doesn't it show

that the bank issuing that kind of currency is in just as good shape as any other bank, so far as its reserve and its assets are concerned? Why should a reasonable man then conclude that the bank is in danger?

Mr. PERRIN. If such notes are issued by a great central bank, that would be one thing. Our problem with many individual banks is more difficult. There would be no opportunity to explain to any considerable percentage, and few would go beyond the alarming fact that the bank was paying 6 or 7 per cent on some portion of its credit notes.

Mr. GILLESPIE. So far as that is concerned, is it not true that this whole system comes to the country as a credit system? The banks are issuing money by means of a printing press, and does not that involve an explanation, and then a man sees that it is all right, that it is safe, that no safe principles of banking have been violated. Do you not have to allay the popular impression in any of these systems?

Mr. PERRIN. If such notes appeared in a time of serenity and were found equal in purchasing power to gold, for which they would be readily exchangeable, the general public would quickly cease to question them. But to bring into existence unaccustomed panic currency at a critical time could not fail to excite public apprehension.

Mr. GILLESPIE. It occurs to me that the objection you made to the 5 per cent or high tax to meet the views of somebody that we ought to have an emergency tax—that is not my view—is not sustained by the fact that one can look at the bank's statement and see that the bank is paying 5 per cent on the additional currency, because if he would do that he would see that the bank is perfectly safe and solvent, because its cash reserves and capital and assets are all intact in proportion to its outstanding notes and deposit liabilities.

Mr. PERRIN. Such a careful analysis, with the conclusion suggested, can hardly be expected from the general public. The hazard would be that no opportunity to explain would be given and that there would be a demand for the withdrawal of deposits.

Mr. GILLESPIE. Another thing. What would you have these notes show upon their face?

Mr. PERRIN. The suggestion has been made that these notes be called national-bank guaranteed credit notes, and that seems an accurate and comprehensive definition of their character.

Mr. GILLESPIE. It is your opinion that it would be proper to state that on the face of the note?

Mr. PERRIN. It would be the honest and straightforward thing, so that everyone might definitely know their character.

Mr. WEEKS. Is not the experience of every bank man that in ordinary times people take any kind of currency?

Mr. PERRIN. I think that has been the experience since the civil war.

Mr. WEEKS. It is only in panic times that people demand certain kinds of money—gold, we will say, for instance?

Mr. PERRIN. Yes.

Mr. WEEKS. Then it is your idea if this currency is in circulation all the time to a greater or less extent that people will become used to it and will not discriminate against it as they would if it were simply an emergency currency, issued only in times of panic? That is your idea of it?

Mr. PERRIN. Yes, with this additional thought that the interchangeability of one form of deposit liability to another, the exchange of the book credit for credit notes, will tend to prevent a panic condition arising.

The CHAIRMAN. The point I understand to be met by the facile transfer of a book credit into a bank note is that while a book credit subject to check would travel—using a physical illustration—at the rate of a mile an hour, a bank-note credit of the same amount would travel at the rate of a hundred miles an hour.

Mr. PERRIN. That is very well put.

The CHAIRMAN. And therefore liquidate vast amounts of credit in the form of bank-note credits which would not be liquidated in the form of an open-book credit.

Mr. PERRIN. Yes. The credit note would pass from hand to hand, perhaps liquidating many debts in a single day, although being deposited before the close of banking hours and redeemed the following day, whereas the bank-book credit, subject to check, requires twenty-four hours to complete one transaction.

Mr. WEEKS. In every country where there is a credit currency issue the system of banking is based on a few large banks with branch banks, is it not?

Mr. PERRIN. That is true at present.

Mr. WEEKS. Now, I want to ask whether in your judgment this facilitates the redemption of this currency or has any particular effect on the redemption of this kind of currency?

Mr. PERRIN. The redemption is certainly simpler with a system of banks with branches.

Mr. WEEKS. In your judgment, would it be practicable to authorize clearing-house banks alone to issue currency and furnish their correspondents with what would be necessary?

Mr. PERRIN. At first thought there might be a preference for limiting credit-note issue to banks with large capital, but I believe that further consideration would lead to the opposite conclusion. The small bank is proportionately as good for its liability as the large bank. The Comptroller of the Currency has expressed the view that his experience with small banks, on the average, has been as satisfactory as with large banks from the standpoint of solvency. There is this further point. A bank exceeds the primary object of its organization when it borrows money. It seems better to develop the independence of a bank rather than its dependence; that it would be better for the local bank to take care of local needs in its small circle than to require it to go to the city bank with collaterals to negotiate a loan.

Mr. WEEKS. Mr. Chairman, I think the speaker does not quite follow my question. The bank with which I am most familiar has about 500 correspondents. Now these correspondents are in the habit of asking this particular bank to furnish them with currency, if they want it, in small bills, fractional silver, and all that sort of thing, rather than apply to the Treasury Department in Washington. That is what led me to ask this question, whether it would not simplify the methods of doing business to authorize the larger banks to issue the currency and furnish it to the smaller banks.

Mr. PERRIN. There is little complication in having each bank accountable to the Comptroller of the Currency's department. Car-

rying out the currency commission's recommendations would mean that a bank, large or small, applying for credit notes would receive the amount authorized. There would be no further accounting with the Comptroller's department, except in the semiannual payment of the tax, as with the bond-secured currency at present. There would seem to be no advantage in having large banks issuing to the small banks and those small banks accountable to the larger banks and the larger banks accountable to the Comptroller for themselves and for their correspondents.

Mr. WEEKS. Suppose this currency were based on the assets of the clearing-house bank; do you think it would strengthen it in popular favor?

Mr. PERRIN. My conviction is that the popular favor would be extended when it was found that the notes were inevitably paid, whether the issuing bank had failed or not.

Mr. WEEKS. Do you think it would be practicable to limit the time in which this currency should remain out?

Mr. PERRIN. That seems to me contrary to the principle of a good currency system. The volume outstanding should be automatically determined by the business needs.

No one suggests limitation in the amount of checks to be issued. We issue whatever the business transactions require, and they are quickly retired. It would be the same with the proposed notes. Like checks, redemption would be forced as soon as the purpose for which they were brought into existence had been served. This has been the experience wherever such credit note issues have been used. In further answer to your prior question with regard to their being issued by central banks or a few large banks, permit me to give the following exact figures in regard to the Suffolk Bank system:

"There were in 1848 306 banks deriving their authority from the six States, and 159 of them did not possess an average capital of \$100,000, nor was the average capital outside of Boston more than \$160,000, and including that city it was not more than \$206,000. By 1860 there were 504 banks."

Mr. WEEKS. That is the point. As I remember this method of issuing their currency, all the banks in New England even did not join in that method.

Mr. PERRIN. There was approximately the same number of banks in that territory then as now.

Mr. POWERS. I want to ask a few questions with reference to this automatic contraction. I am not satisfied fully that there will be such an automatic contraction of the currency as has been contended, and I fear we shall be inflating the amount of the currency, a large amount of it permanently, by this measure. With that in view I would like a little information. Is there any country in which this credit currency is used where the banking system is at all analogous to that in our country?

Mr. PERRIN. There is no exactly analogous system in existence at the present time. This makes our problem the more difficult. The nearest analogy is the Suffolk system of banks, which was almost identical.

Mr. POWERS. I know something of the Suffolk system. There were some banks in the system that arranged to redeem their bills at the Suffolk bank, and the bills of these banks were current all over New

England, but not all banks went into that. In all countries where you have this credit currency is there more than one form of paper money?

Mr. PERRIN. In Germany the only form of paper money is the credit bank note, with the exception of \$30,000,000 Imperial notes. In France the credit notes are the only form.

Mr. POWERS. Is there any such thing as the establishment of redemption centers, as you propose in this bill, in any of these countries, and is it necessary to have anything of that kind?

Mr. PERRIN. By reason of the branches throughout the country the notes of the competing banks are exchanged through those agencies, as in Canada.

Mr. POWERS. Do you think that the small banks throughout the country where there is a pressing demand for currency would avail themselves of this at once in order to get currency?

Mr. PERRIN. If the note issues are upon the right lines every national bank in the country will seek constantly to put its notes out.

Mr. POWERS. I mean avail themselves of the right to issue?

Mr. PERRIN. It is mere conjecture as to how rapidly banks would seek to avail themselves of these issues. Banks are very conservative, and many might wait to observe the operation. It would probably be a gradual process.

Mr. POWERS. You have no question or apprehension—and I am sure I have not—of the soundness of this so-called credit currency and of the fact that people will take it as readily as any other currency we now have?

Mr. PERRIN. I have no question of that.

Mr. POWERS. While it may be true, and is true, that in cities nearly everything is done by checks, is it not true that throughout the country, in payment for crops and payment in some cases for labor in mills and on farms, that almost everything is done by currency?

Mr. PERRIN. That is the fact; and to supply that need we are now using lawful reserve money. It is believed that bank-book credits put into the form of credit notes will serve this purpose and prevent the widespread contraction of credit when there is any unusual demand in the interior. It is the interior which will have the largest use of such currency.

Mr. POWERS. At the present time there are some \$32 per capita of money in this country?

Mr. PERRIN. Somewhat in excess of \$33 per capita, I believe.

Mr. POWERS. When this money for which there is such a call in the country, credit currency and other money, has been scattered among the people, do you think it will automatically contract itself when the pressure is over?

Mr. PERRIN. As soon as the pressure is over I think it would be impossible to keep out more than the lessened requirements would necessitate.

Mr. POWERS. Do you not think that the country bank that has it paid in, if it is equally good, will continue to lend it right over its counters regardless of what bank may have issued it?

Mr. PERRIN. The bank would lend credit, not these notes or other currency. The currency would simply be the instrument for carrying out the details of the transactions. To lend credit notes suggests their retention by the borrower until the maturity of his note, whereas

the probability is that any currency received as the proceeds of his loan would be promptly paid out and might get back to the same bank upon the same day.

Mr. POWERS. If I go to the bank to borrow a thousand dollars and give them my note and they give me the money instead of a credit to my account, as is general in the country, will they not lend me the credit notes issued by banks in other parts of the country that they may have on hand instead of sending these notes back to be redeemed?

Mr. PERRIN. In carrying out such a transaction no bank would pay out the notes of another bank when it could issue its own with profit.

Mr. POWERS. But if the issue of its own notes has been exhausted, which might be the case under this bill, what would they do then?

Mr. PERRIN. Such a condition would show a demand for currency beyond that bank's ability to supply it, and it would of course use whatever other currency it had, including the credit notes of other banks.

Mr. POWERS. Would not that be true in every small country bank, that there would be a demand beyond the ability of that bank to supply the currency under this bill—that is, I mean to supply its own currency?

Mr. PERRIN. That brings up the question to what extent credit-note issues should be authorized to give perfect operation. It is not thought by the currency commission that the plan recommended will accomplish that much-desired end, but simply that they constitute a small, safe, conservative step in the right direction.

Mr. POWERS. For instance, you take a country bank, with bonds deposited so that it has of bond-secured notes \$12,500 of currency to-day. How much credit currency could it issue?

Mr. PERRIN. Forty per cent of \$12,500, amounting to \$5,000, subject to a tax of 2½ per cent.

Mr. POWERS. Which would be a small amount?

Mr. PERRIN. It, however, would have the right to increase its bond-secured circulation.

Mr. POWERS. I understand, but that would be a process which would take some time to bring about. Do you not believe that quite a large proportion of these notes will continually be in circulation among people and add to the volume of the currency of the country in all seasons of the year?

Mr. PERRIN. Some minimum amount will undoubtedly be constantly outstanding, below which it may be impossible to go. With a slackened demand for the use of currency, these credit notes would be largely driven out of existence by the persistent redemption, and it would be impossible to get them into circulation if the business needs did not require them.

Mr. POWERS. Now to refer to a concrete instance, the banks of Canada make it a point to get a good many of their bills over the line, as was stated by Mr. Fowler. For years along the frontier of Canada, where I live, our national banks took their money and paid it out, until they were notified by the Comptroller that they were subject to a 10 per cent tax. That currency goes in there just the same. Now do you not believe that in country places a small national bank which has to ship and pay money from Boston, currency, a great many thousand dollars, during the times when crops are being harvested, do you not believe that they will continue to pay out any

of these credit notes that they have, regardless of what bank issued them?

Mr. PERRIN. During the time when the demand for currency is such that it has succeeded in putting out its own total authorized issue a bank would pay out the credit notes of other banks. But, if you follow the situation, after the harvesting is over currency will accumulate, and, in order to increase the credit with its reserve agent, the bank will ship credit notes in preference to other currency, because it entails no cost to the shipper.

Mr. POWERS. It will ship what it has of such currency, but will the people bring this currency in any sooner than they will bring other currency in, if one goes as well as the other?

Mr. PERRIN. If the Commission is correct in its conception of the probable operation, it will be the credit bank note that is chiefly used by the farmer and the wage-earner. The lawful reserve money will be in the vaults of the banks where it belongs, so that an accumulation of currency after the crop movement would consequently be an accumulation of credit notes.

Mr. POWERS. These credit bank notes will be a very small proportion of the currency of the country in any bill I have seen.

Mr. PERRIN. That is very true; but if we can introduce into our currency the possibility of an expansion of \$200,000,000 when needed and an approximately equal contraction when the need for the currency has ceased, a vast deal will have been accomplished to solve the problem.

Mr. POWERS. That may be so; but suppose the farmer has taken a hundred or two hundred or five hundred dollars' worth of crops and has got credit notes, silver certificates, gold certificates, and greenbacks and national-bank currency, one equally as good as the other for his purpose, do you believe he will select the credit notes out of that bundle rather than any other and redeem them at the bank, and that therefore they will get into the bank and cause contraction?

Mr. PERRIN. The farmer having the money mentioned will use it without discrimination as to its character, either by depositing it in the bank or in exchanging it for things desired, so that all the money will ultimately reach some bank, through the merchant, through the blacksmith, and so on, and the bank will force redemption of the credit notes in the way previously described. When the demand for currency arises again the lawful reserve money will then be the last to be paid out.

Mr. POWERS. But the credit notes will furnish very little of the money that is to be paid out.

Mr. PERRIN. That may be true, but in addition to the money already in the pockets of the farmers, it is estimated that \$200,000,000 of currency now goes from the centers for the crop movement.

Mr. POWERS. They are transferring from the money centers now a great many millions?

Mr. PERRIN. This is the crop-moving time, when this transfer is taking place.

Mr. POWERS. Where do you propose to have redemption centers to which all this money will be sent for redemption?

Mr. PERRIN. That is a detail which we have not sought to determine. The natural place, perhaps, for redemption cities would be clearing-house cities, the reserve cities. They should be numerous

enough so that no bank would be beyond easy reach of a redemption city.

The CHAIRMAN. About what length of time?

Mr. PERRIN. Twenty-four hours has been suggested. It is possible that there may be remote places which would be somewhat farther from a redemption city.

Mr. POWERS. A large proportion of the redemption of New England is done in Boston. In my section of the State, in order to send a package of money and get returns, you have to go without your interest for about three days, and, if there is a holiday, for about four days.

Mr. PERRIN. In the redemption of credit notes they will probably be forwarded not for redemption and reshipment of lawful money, as now, but will be forwarded to the redemption city and credit taken with a bank's reserve agent in that city.

Mr. POWERS. Certainly, it will be placed at your credit, but you will not get advice that it is placed at your credit in less than the time I give you—that is, if you do not use the bills; you will lose the interest for about two days.

The CHAIRMAN. Is that true of checks?

Mr. PERRIN. It will be just the same in sending to Boston a draft on that city; you could not possibly avoid the loss of interest for one day.

When currency is accumulating it will be an accommodation to the bank if credit notes are brought in which may be shipped without expense to the bank.

Mr. POWERS. In explanation I would like to see something done that will give more elasticity to our currency, and I have faith in the soundness of this currency you propose to issue, but I am not yet satisfied that it will operate automatically, as you suggest, under our peculiar banking system with our heterogeneous currency, if I may use the word, and I am opposed to any inflation of the currency that will be an increase of the amount of circulating medium for temporary purposes when there is a call; but I think it would tend to encourage an era of speculation and extravagance, and we certainly have as much of that as we need, and it is that point, the taking of this money out of circulation, upon which I wish information, and hence the question that I have asked.

Mr. PERRIN. Trace the natural course of a credit note. Let us assume that at the harvest time the farmer exchanges it for things he desires. It goes to the retail merchant, who deposits it in the bank. If at a period when currency is accumulating in that bank, for its profit, the bank seeks to dispose of its redundant currency. It may ship its gold certificates or its silver certificates or its bond-secured notes by paying the customary express charges. But without expense for transportation it may ship these credit notes to the reserve cities, taking credit with its reserve agent. If the national banker has shipped all the credit notes in his possession, he will go to the State banks and trust companies in his city and seek to exchange lawful money for such credit notes as they have, in order that he may make shipment without expense to himself. It would seem that this would be the natural way in which redemption would be forced, as the currency returns after the crop movement.

Mr. POWERS. I am not sure that the national banker would trouble

himself to go to the trust companies to see if they had any credit currency rather than to ship the other that he might have, or he would have no particular reason for doing it.

The CHAIRMAN. Would he not have a particular reason—the difference of cost?

Mr. POWERS. I see; there might be that.

Mr. PERRIN. But this same right would rest with the individual, with the State bank, with the trust company, to ship redundant currency to the redemption agency without expense for transportation. Now, as to whether the national bank or any other bank would trouble itself to seek credit notes, it is only necessary to consider how important the item of exchange is to ascertain how much trouble would be taken to avoid or lessen the cost of shipment.

In the bank with which I am connected it is not unusual for us to seek to lessen the cost of transfers in some such way as this: We telegraph Pittsburg, "At what rate will you trade \$100,000 New York exchange for \$100,000 Chicago exchange?" or vice versa; or telegraph Chicago, "At what will you sell us \$100,000 New York exchange?" or to Cincinnati, "At what rate will you trade Chicago exchange for Pittsburg exchange?" Or we may find it advantageous to transfer from Cincinnati to Pittsburg and then from Pittsburg to New York, instead of making the transfer from Cincinnati to New York. And if we have a redundancy of currency, we buy exchange from our neighbors, paying whatever premium may be necessary that is less than the shipping rate, thereby reducing the cost of transfer.

Mr. POWERS. But you do business on a large scale. We do it on a small scale.

The CHAIRMAN. If you will allow me, I would like you to point out, in answer to what the Governor stated, the exact reason why a bank would go to his neighbors in a town and secure from them an exchange of credit notes for its silver certificates and gold certificates, which are lawful money, and its bank notes.

Mr. POWERS. I am talking about country banks that only ship \$1,000 or \$2,000 at a time.

Mr. PERRIN. In Indiana where a country bank finds it has a redundancy of currency, it is a very customary method for the banker to go himself on a trolley car, in order to carry currency to his reserve agent, because it costs less to do this than to ship by express. He is willing to take the time and incur the risk to avoid the express charges.

I believe there is no question about that currency being shipped which is least expensive, if the saving is only 5 cents for each \$1,000. If a bank wishes to ship currency, and has no credit notes of other banks, it would telephone the neighbor banks, including State banking institutions, seeking to make an exchange for credit notes, and if necessary will pay as a premium a certain portion of the express rate, in order to avoid a portion of the cost in shipping the present forms of currency, just as a premium is now paid for exchange under similar circumstances. In short, in seeking to exchange redundant currency for a credit with a reserve agent that method will be followed which entails expense.

The CHAIRMAN. In other words, so that this currency, which is to go from every point at which it may be found to its redemption absolutely without cost, will always be sent instead of a currency which to-day is costing you 40 cents up to \$1 a thousand.

Mr. PERRIN. Yes; such credit notes will always be sent in preference, and there may be even a premium paid for them. A bank would as willingly pay a premium for credit bank notes, which it may ship without cost, as to pay a premium for exchange, which is a matter of constant occurrence at present.

If I may be permitted to do so, I would like to incorporate in my previous answer a statement from the Comptroller's report.

The CHAIRMAN. Certainly.

Mr. PERRIN. "The notes on reaching the redemption center could be cleared like checks through a clearing house, and the balances either remitted as currency or transferred for credit in reserve or central reserve cities. Each bank which issued uncovered gold-reserve notes," (as the Comptroller designates them) "would thus have to face every day the redemption of some of its notes and be prepared for it. Self-interest, as well as the law, would compel them to carry the necessary reserves. The advantage of keeping its own notes in circulation would make each bank alert to pay out their own notes as long as they had them on hand, and to send notes of other banks to the nearest redemption center for the credit of their account against their own notes, which would be presented there.

"The number and location of the redemption centers would insure that every gold-reserve note, as soon as there was any decrease in the demand for it for current cash transactions, would at once start on its way for redemption. In this way the net results of the transactions of each bank with its own customers would immediately be felt, and the amount of the uncovered gold-reserve notes in circulation would be exactly determined by the demand for them for current cash transactions. If the people wanted notes and would keep them in circulation, they would stay out; if they no longer needed them and began to turn them into the banks, they would at once be redeemed. The volume of notes in circulation would be immediately and exactly responsive to the demands of the people and the needs of business."

Mr. WEEMS. Under the present redemption system, after the bond-secured notes are redeemed the bank gets them back and can reissue them?

Mr. PERRIN. Yes.

Mr. WEEMS. The same thing is proposed for the credit notes?

Mr. PERRIN. Yes.

Mr. GILLESPIE. Let me understand that. You say reissue the notes?

Mr. PERRIN. Yes.

Mr. WEEMS. So that it is not retirement. It is simply redemption in the proper sense of the term?

Mr. PERRIN. Yes; simply redemption.

Mr. WEEMS. The bank gets its notes back, then, after all this redemption is over?

Mr. PERRIN. Yes.

Mr. WEEMS. Now, if it can profitably use them it will not retire them?

Mr. PERRIN. Certainly not.

Mr. WEEMS. Suppose, then, in the spring of the year, when the redundancy period is on hand, a bank would accumulate its notes and we did not have this tax on them, they are absolutely untaxed,

and the bank still loaned that much money to New York for 2 per cent, it would have a motive to keep them in existence then and would do it, would it not?

Mr. PERRIN. I am glad you say "absolutely untaxed," because that gives the maximum profit for the illustration. Assume that a bank, having its entire authorized issue of credit notes in its vaults, ships them to its reserve agent in New York, requesting credit for the amount, subject to 2 per cent interest. Assume, also, that the reserve agent in New York receives the notes and gives the credit. The notes would promptly be sent to the redemption agent in that city, and lawful money secured for them. The notes would then be shipped back the same day to the issuing bank, which has simply had the incidental expense without benefit.

Mr. WALDO. They could come back as quick as the check of the bank would come back?

Mr. PERRIN. Yes.

Mr. WALDO. This is all they are in fact in that transaction—a check?

Mr. PERRIN. Exactly.

Mr. WEEMS. Of course the bank has made a loan of 2 per cent by the transaction in the city of New York, has credit over there of the amount, whatever it is; that is true, is it not?

Mr. PERRIN. I did not state the ultimate result of the transaction. The redemption agent does not redeem out of goodness of heart, but out of the reserve at the credit of the issuing bank. So that, while according to the illustration there might be a credit in current account, there would be an equal debit against the redemption account.

The CHAIRMAN. How long would he have the benefit of that loan in New York according to that exact transaction?

Mr. PERRIN. Possibly three hours. Inasmuch as interest is calculated on balances at the close of the day's business and inasmuch as the debit in this transaction would have extinguished the credit, there would be no interest, not even for one day.

Mr. WEEMS. After all that is over he has made his loan, getting his 2 per cent on deposit, 2 per cent on that \$2,000?

Mr. PERRIN. After the credit was made the account was charged the same amount on the same day on account of redemption, so that the transaction yields no increased credit.

Mr. WEEMS. But he gets the notes back, the same notes?

Mr. PERRIN. Yes; and then the issuing bank is in the same position as at the outset.

Mr. WEEMS. No; he has loaned \$2,000 and gets interest on it.

Mr. PERRIN. But that account upon the same day has a debit of the same amount for the redemption of the notes forwarded.

Mr. WEEMS. It comes to this: The bank issuing had its own money paid out of its own assets in the redemption fund. If the credit notes are sent to New York and deposited with the bank there at 2 per cent out of the bank's own money in the redemption fund, the credit notes are redeemed?

Mr. PERRIN. Yes.

Mr. WEEMS. And then sent to the bank. The bank has parted with that money in the transaction in its final shape; it has parted with that much of its money in the redemption fund that it is compelled to replace, and it has got back its credit notes, and it has a deposit

of \$2,000 that it is getting interest on, but it must replenish the redemption fund.

Mr. PERRIN. How does it replenish this redemption fund; whence comes the money to replace this debit of \$2,000?

Mr. WEEMS. From the bank's assets.

Mr. PERRIN. Would not that money necessarily come from one of two sources? Either the issuing bank must ship from its own vaults the \$2,000 lawful money necessary to deposit with the redemption agent, or it must instruct some correspondent to make such deposit. The correspondent may be counted upon to charge the account with \$2,000 when such a deposit is made. If the issuing bank has been given a credit by its reserve agent of \$2,000 upon the receipt of these credit notes, the same day there is a corresponding debit for the deposit of lawful money with which to redeem them, wherein lies the advantage to the issuing bank?

Mr. WEEMS. Wherein lies the advantage in what?

Mr. PERRIN. In sending these notes, as you suggested, in order to make the loan or a deposit with the bank to run at 2 per cent; it has failed entirely in accomplishing an increase of its credit.

Mr. WEEMS. Suppose the bank instead of sending the credit notes sends the same amount of lawful money. It had more of that money to spare, say, above its lawful reserve.

Mr. PERRIN. That is the kind of transactions that are going on every business day of the year, and are as legitimate as can be.

Mr. WEEMS. The net result would be the same, except the expense saved, would it not?

Mr. PERRIN. The net result would be the transfer from its vaults of lawful money which was yielding no interest into a credit with the reserve agent which would yield 2 per cent interest, with no expense other than the cost of transportation.

Mr. WEEMS. Is it impossible to make a loan at 2 per cent in New York with the aid of these credit notes if you have them?

Mr. PERRIN. In the way you suggest, as impossible as for a man to pull himself up by his boot straps.

Mr. WEEMS. Now, about the call-money market in New York; do you know what proportion of the ordinary bank loans are call-money loans?

Mr. PERRIN. Of the New York banks?

Mr. WEEMS. Yes.

Mr. PERRIN. I have never made a calculation of that. Some of the other gentlemen here may have information.

Mr. WEEMS. You do not know whether any statistics are available on that subject?

Mr. PERRIN. Yes; many banks publish their call loans separately from their time loans and discounts, and to the extent they so separate them the information is available.

Mr. WEEMS. Is there a special percentage of their commercial loans over their call loans, or do you know as to that?

Mr. PERRIN. Referring to my earlier comment regarding call loans, it would naturally be the case, when a bank's commercial customers require large accommodations, that the call loans carried with which to meet such a demand would be reduced; when the commercial customers required less, the call loans would naturally increase.

Mr. WEEMS. It might possibly be of some utility if the country should be informed on this question as to whether when the pinch comes in the fall, which centers in New York, it affects the money supply for speculation or for legitimate business operations, and in what proportion?

Mr. PERRIN. Whether that could be arrived at with accuracy is a question. This, however, is a fact patent to every banker who has had experience with call loans in New York: The more severe the stringency the more desirous the conservative bank is to have funds that are available in excess of its usual reserve. If such funds are carried in call loans in New York and a stringency reaches the point of a crisis so that those who have thus loaned have apprehensions of loss, or of inability to secure prompt repayment, such a condition, brought about by the depletion of lawful money reserves for the crop movement, is fraught with grave hazard.

Mr. McCREARY. Then when the conditions become very acute they have relieved this by a form of emergency currency in the shape of clearing-house certificates?

Mr. PERRIN. Yes.

Mr. McCREARY. And that is simply like a dose to a sick man to keep him from dying?

Mr. PERRIN. The clearing-house certificate proclaims that the extremest kind of dangerous conditions exist and universal apprehensions are aroused with disastrous results to commerce.

Mr. McCREARY. And this is to avoid that situation?

Mr. PERRIN. A proper currency system would serve to prevent such a condition arising.

Mr. McCREARY. It is a suspension, too?

Mr. PERRIN. It is a suspension of payment; yes.

Mr. WEEMS. The device that would be resorted to by the country banker that has not made a 2 per cent loan would be the notes of the other bank and not its own, and that means the redemption of the other bank's notes, I understand.

Mr. SHARTEL. It seems to me that these hearings have developed one or two facts that I would like to ask Mr. Perrin about.

It seems that the hearings so far have shown that the New York banks by paying 2 per cent interest in times of easy money secure all the surplus money in the country, all such money then goes to New York; that this creates an era of speculation, and that when the interior demands the return of their money it brings panic and high interest rates in New York. Do you not think this bill authorize the issuing of credit currency so as to relieve the necessity of the return of this money will keep up the speculation in New York all the year round?

Mr. PERRIN. If the recommendations of the currency commission were enacted into law and it gave us a currency system that would be perfect in its operations, I would say that the natural result would be lower and more stable rates of interest. Whatever speculation would result under those conditions might be classed as legitimate speculation as distinguished from the speculation which is enforced through the artificial and unnatural putting out of loans at abnormally low rates during a period of accumulation of lawful money reserves.

Mr. SHARTEL. Is it not a fact that New York City and Chicago and St. Louis and the other money centers at certain seasons of the

year accumulate nearly all the surplus money of the country by paying interest on deposits?

Mr. PERRIN. Yes; redundant currency naturally accumulates at the centers when the interior does not need it.

Mr. SHARTEL. And then does it not become a burden upon these money centers to return that money at certain seasons of the year?

Mr. PERRIN. Paying interest as suggested necessarily requires banks to recoup themselves to the best of their ability. They will lend at fair rates, if possible, but they will lend at some rate to offset the interest paid. It is obvious that speculative ventures are encouraged with a 3 per cent rate, which could not possibly spring into existence with a 5 or 6 per cent rate.

Mr. SHARTEL. Then when the country banks in the interior want their money, if this credit currency can be issued by the city bank and by the country bank, they would not have to return these deposits? They could keep them the year round?

Mr. PERRIN. The alternate contraction of credits, through depletion of reserves, at one season would be avoided and the enforced expansion at another.

Mr. SHARTEL. Now, the question is this: Why would it not be better for the country banker to keep his money at home and lose the 2 per cent in easy times rather than to pay $2\frac{1}{2}$ per cent tax to issue credit currency when he needed his money?

Mr. PERRIN. The credit carried with a reserve agent by the country bank is a portion of the reserve required against its liability, both for deposits and credit-note issues. One dollar of credit with a reserve agent drawing 2 per cent is the average reserve required against \$5 of credit notes. It would obviously be more profitable if the opportunity offered to issue \$5 of credit notes taxed at $2\frac{1}{2}$ per cent than to contract loans for a like amount running at 6 per cent in order to meet a demand for that amount of currency.

Mr. SHARTEL. It seems to me from the hearing that the result of this bill would be very largely in the interest of the money centers.

Mr. PERRIN. I think it would be interesting to trace that in individual transactions to ascertain whether it is a fact.

Mr. SHARTEL. That is what I would like to draw out.

Mr. PERRIN. Let us take New York as the best illustration. Practically the only opportunity for the issue of credit notes is in exchange for deposits subject to check. The Wall street broker has no use for them; he uses certified checks. No currency of any kind is used in Wall street. Some notes might be issued to merchants and manufacturers in exchange for their checks for pay rolls. Shipments to the interior are made only upon request.

At the period when currency accumulates shipments are toward the centers, not to the interior. When the period for crop movement comes and currency is demanded from the New York banks, the opportunity is then given them to exchange their bank-book credits into these credit notes, which they would ship instead of their lawful money reserve. The liabilities of the issuing banks would not be increased; it would simply be exchanging a liability from one form into another, the same reserves being maintained. There would be no contraction of credits, no increase of liability, no inflation. Such notes can be kept out only so long as the transactions in the interior furnish the opportunity.

Those banks will be able to keep out the largest percentage of credit notes whose customers prefer this form of the bank's credit to open deposit accounts. This is the case in the interior, where the deposit and check method is much less used than in the cities and where a far larger percentage of transactions are handled with currency.

The country bank will profit most, both because it will be able to keep its notes in more constant use and because its reserve requirements are less its note issues will be more profitable.

Mr. SHARTEL. Is it your understanding that one national bank is compelled to take the notes of another bank?

Mr. PERRIN. Yes; and that is in accordance with the existing law also.

Mr. SHARTEL. Then could not a New York bank, if called upon to pay its country correspondent its account, pay it in these credit notes?

Mr. PERRIN. Yes, but what would that avail if the country correspondent did not want the notes?

Mr. SHARTEL. Would the country correspondent have to take these notes?

Mr. PERRIN. Under the law as suggested, yes; but follow that one step. The country bank receiving the credit notes and not wishing them has only to send them to the nearest redemption agency to get lawful money for them.

Mr. GILLESPIE. At the expense of the issuing bank?

Mr. PERRIN. Without expense for shipment to the redemption agency.

Mr. WEEKS. I practically agree with Governor Powers in regard to the merits of this proposition. The only thing that has troubled me has been the redemption of these notes. I want to ask you if you think it would be practical to compel a national bank when it receives the notes of another bank to send those to the nearest redemption point?

Mr. CONANT. In that case it would be impossible for the banks in the reserve cities to lend their notes in the crop-moving season; a reserve city bank called upon would not be able to send its notes to the country bank for payment over its counters if it be required that they immediately be returned for redemption and not disbursed.

Mr. PRINCE. I think Mr. Perrin has answered this. When the time for retiring the credit notes arrives and the issuing banks pay into the guaranty fund an amount of gold coin equal to the amount of its national-bank guaranteed credit notes then outstanding, would there then be brought upon the country any financial trouble by reason of tying up so much reserve money?

The CHAIRMAN. Excuse me, I think Mr. Prince has misapprehended the recommendations. There is nothing in the proposal of the currency commission looking to what he has asked in this question.

Mr. PRINCE. Well, put it in this way; maybe I have misapprehended it.

You say there are certain periods of the year when from \$150,000,000 to \$200,000,000 of this elastic currency ought to be issued, and when the time passes for the need of that currency we should be able to call it in, and the only way I know of how you can call it in—as you do not want to pay a tax on it if it is outstanding—is by depositing in the guaranty fund gold coin to an amount equal to the

notes you have outstanding. Now, then, when that is done would it affect the country in any way by reason of tying up, say, \$100,000,000? For instance, during the course of the year you issue \$150,000,000, \$50,000,000 of which has been redeemed, as you have suggested, over your counters, or by banks sending it in; there is \$100,000,000 left in circulation. You do not want to pay the tax of 2½ per cent on that. You and other banks agree that there is no need of that currency in circulation and you send to the guaranty fund \$100,000,000 of gold coin to take the place of the \$100,000,000 in circulation. What would be the effect upon the business interests of the country to have tied up \$100,000,000 of gold reserve money in the guaranty fund?

Mr. PERRIN. The withdrawal from lawful money reserves of \$100,000,000 for deposit in the Treasury would cause a contraction of credits to the extent of four or five times the amount so withdrawn. The high tax would be the only thing that would induce any such method of retirement.

Mr. PRINCE. A low tax would not induce such a retirement?

Mr. PERRIN. The incentive in that case would be for constant issue to the extent of the opportunity offered in order to make the profit.

Mr. PRINCE. Do you get back to one of two positions—if you put a high tax on it, then you contract and enlarge the currency at will; if you have a low tax, you have no incentive to contract the currency and you have every incentive to keep your \$200,000,000 constantly in circulation, and if you have that incentive, have you not increased or inflated the currency by \$200,000,000 constantly in circulation?

Mr. PERRIN. If you impose a high tax, you infuse into the operations of the currency system an artificial, unnatural, and extraordinary contraction of credit as the only means of eliminating the redundant currency. When \$100,000,000 of currency has served the purpose for which it has been brought into existence it seems an unnecessary and extraordinary disturbance that there should be a contraction of \$500,000,000 of credits to bring about its retirement. In the successful operation of credit currency a bank must have a constant and a strong incentive for its issue. Linked with this is a correspondingly strong incentive to force the redemption of competitor's notes. A bank can not keep its own notes in circulation beyond the business needs, whatever its incentive, because its competitors will be constantly forcing it in for redemption in order to make room for their own issues.

Mr. PRINCE. But if you have a high tax, then the incentive would be to contract it?

Mr. PERRIN. If a high-taxed or panic currency were issued, the bank issuing it would obviously seek to retire it as quickly as it could contract its loans and thus secure the money. No bank would wish to have a panic currency outstanding, and without regard to its own profit would contract its loans and deposit lawful money for the retirement, regardless of the fact that such a withdrawal of lawful money from reserves would mean a contraction of credits of five times the amount of money involved.

Mr. PRINCE. Then your argument would be the lower the tax the less liability of contraction in this elastic currency by reason of the deposit of lawful money?

Mr. PERRIN. With a low tax and consequent profit in issuing there would be no incentive for retirement by the deposit of lawful money

except when a bank was going out of existence and liquidating. The notes in the vault are not subject to tax. An elastic currency would automatically contract when the need for its use had passed, by reason of the constant daily redemption.

Mr. PRINCE. Does this elastic-currency plan permit in any manner whatever the issuing bank to increase and diminish the volume of currency at will?

Mr. PERRIN. If the tax is low enough, the constant incentive exists for putting the notes out at every opportunity, but competitors have an equal incentive for forcing their redemption to make room for their own notes. A note once issued is beyond the control of the issuing bank. As soon as the needs have been satisfied which give the opportunity for issue a credit note would find its way into the till of the merchant, into the hands of a competing bank, and be immediately presented for redemption.

The constant automatic adjustment of volume by reason of the incentive on the one hand to issue and on the other the equally strong incentive for forcing the redemption of competitors' notes is in exact accord with the business requirements. A check issued is beyond the control of the man issuing it; it is for the holder of the check to determine when he will present it.

Mr. PRINCE. Yes; but the trouble is here with the check: I may or may not take that check, as I see fit; the bank may refuse the check; but as I understand your plan, when you issue one of these elastic-currency or credit-currency notes it has all the force and effect throughout the country, for every purpose whatever, that a national-bank note has to-day; it is clothed with all the authority that a national-bank note has. But my check is not clothed with any such authority.

Mr. PERRIN. The credit note is better than a deposit liability of a bank by reason of the guaranty fund.

Mr. PRINCE. Now, to be frank with you, the chairman and I, perhaps, have been the only two, I think, in the history of legislation that have squarely tried to advocate, and in good faith believing in it, an asset-currency plan; but in the House you will find a good deal of trouble on that proposition; they accept the bond-based note, but they raise a question like this—and I wish you would answer it here, so that we will be able to answer it on the floor of the House: To permit you to issue a note that is good and at the same time keep the asset in your hand on that note that you are issuing, they say when it comes to the bond-based note that the Government holds the asset; you are permitted to issue your note based upon that asset; but here is a departure from that; here is a proposition to allow the bank to issue a note that has all the authority and the force and effect of a national-bank note, the national-bank note being secured by a bond, and which bond is held by the Government to make good that national-bank note. Now, that is the trouble we will have.

Mr. PERRIN. It should be a sufficient answer to those who question the quality of the credit notes as recommended by the currency commission that wherever notes of this character have been used in any currency system of the world they have demonstrated their soundness and safety and they constitute the only form of elastic currency which has ever been devised. We have good illustrations in our own history prior to the civil war, and it is extremely unfortunate for

the commerce of this country that our system was not permitted an evolution which would unquestionably have given us now a scientific banking and currency system.

Consider how carefully we develop every means of production, what appliances, what machinery the farmer has, how carefully we develop our means of transportation; but instead of using in our currency a form analogous to the steam engine and electricity we are using the ox cart. There is nothing, in my judgment, that would so tend to make permanent a period of prosperity and so mitigate a period of depression as the best type of a banking and currency system. That is impossible of realization in a single short step, but surely there is small defense for not making some small step, some little progress toward better conditions. Experience proves absolutely so far as the forty years' history of our bond-secured currency goes, that the bond-secured notes would have been safe if no bonds had been pledged to secure them.

Mr. PRINCE. Right there, permit me to suggest that I think that has been suggested on the floor of the House, and that they say that it is not a fair comparison because it is not on all fours with conditions that would arise if you had no bond-based currency. How do you know, they ask, but what there might have been failures of banks if every note had not been secured by a bond?

Mr. PERRIN. A reasonably comprehensive answer to that is that no instance can be cited at the present or in the past, where a credit note of the type recommended has ever been other than absolutely safe.

The CHAIRMAN. Will you allow me an interruption?

Mr. PERRIN. Certainly.

The CHAIRMAN. Do you remember the Comptroller of the Currency, from his office, prepared a statement showing precisely what would have happened if they had from the foundation of the national-banking system burned up every Government bond and there had been no recovery for a cent of the Government bonds that had been deposited by the national banks from the foundation of the system down to the present hour, what tax would have been required on all the notes outstanding from the start down to the present time to pay the notes of the failed banks? The Government bonds are lost now and are not counted in the assets of the bank at all in this calculation. It would have taken eight-thousandths of 1 per cent to pay the notes of the failed banks if the notes had been a first lien. But still regarding the bonds as lost and no part of the assets, wiped out entirely, it would have taken, from the foundation of the system to the present time, a tax of only one-fifth of 1 per cent on all the notes outstanding to have paid the notes of the failed banks.

Mr. PRINCE. But they answer that in the cloak room in this way: They say that is true, so far as those forty years are concerned, but what about the prior years, when the banks had the right to issue this kind of money? You say it is based upon bad bonds. If it was based upon bad bonds and was a failure, then would it not be a greater failure if based upon no bonds at all?

The CHAIRMAN. Mr. Prince's assumption that a credit currency was ever based on any bonds is not a sound assumption. No credit currency ever was based on any bonds, either turnpike or State bonds; that was a bond-secured currency.

Mr. PRINCE. Were all those bank notes that were based upon those bonds paid in the course of time?

Mr. PERRIN. Those that were based on the good and bad bonds alike?

Mr. PRINCE. Yes.

Mr. PERRIN. If they were paid they were good; some were good and some were bad.

Mr. PRINCE. Of those that were based on some kind of bonds, some were good and some were bad. Would they have been any better if they had not been based on anything?

The CHAIRMAN. Now, as distinguished from his assumption that any credit notes were ever based upon any bonds at all, it is absolutely true, historically, that no system of credit notes in this country has ever proved bad.

Mr. PERRIN. I believe it is true historically that no credit-note issue of the type recommended has ever proved bad in any country.

Mr. PRINCE. Then be kind enough to explain to us what is commonly called "wild-cat currency."

Mr. PERRIN. That was largely a bond-secured currency.

Mr. PRINCE. I understood the chairman to say that that was a violent assumption on my part, and yet you persist in saying that there was a bond-secured currency. Which was correct?

The CHAIRMAN. A bond-secured currency is not a credit currency.

Mr. PERRIN. "Wild-cat" was not a term applied to any credit-note issue.

Mr. PRINCE. Now, be kind enough to state the distinction between wild-cat currency and credit currency, so that we can give that to the House.

Mr. WALDO. The great difference between this and wild-cat currency is that this is guaranteed and wild-cat currency was not guaranteed. Is not that the difference? Every State had a right under the old system to issue currency, if it saw fit, and it was not guaranteed. This is issued under a national law and is guaranteed by a deposit in the United States Treasury, and we know it is going to be paid, no matter what becomes of the bank that issues it. Is not that the difference?

Mr. PERRIN. The notes of the "wild-cat" banks were secured by the pledge of bonds or stocks, and there was no thought that a bank's assets should redeem its notes. Every effort was made to elude the possibility of having notes presented for redemption by locating the so-called "banks" in inaccessible places. Out of something more than 90 banks organized in Indiana under the free-banking act of 1852, more than 50 had suspended before the panic of 1857. That plan of so-called "banking" simply enabled speculators to sell securities to the public, while the sellers drew the interest.

Mr. CALDERHEAD. I wish to make a suggestion to Mr. Prince; that the old State Bank of Louisiana was the best example of the pure fiat currency we ever had, and the notes were paid after the civil war.

The CHAIRMAN. Credit currency is based upon the credit of the banks and the current redemption of that note in the coin of the country at the time of its circulation, and they are coincident, and that is what constitutes the soul of a credit currency, the credit of a bank being currently redeemed in the money of the country, whatever that is; while the "wild-cat," "blue-pup," "yellow-dog," and every

other kind of such money, was money that was issued by banks without capital throughout the length and breadth of this country, and almost invariably based upon bonds such as they were issuing in the early period of this country, some of them, even, railroad bonds, and turnpike bonds, State credits, and all sorts of things, such as to-day are called "cats and dogs" in the bank.

Mr. WALDO. It seems to me the real difference and the difference that is going to appeal to the country, between this and the old style of state-bank currency is that this is a national currency; that the note that is issued by Governor Powers's bank up in the corner of Maine will be just as good in Louisiana as it is in his own town, because it is a national currency issued under national law and it is redeemed and guaranteed by the United States, on account of this guaranty fund; is not that the difference?

Mr. PERRIN. That may be the reason why it will appeal to the country. It is unquestionably desirable that any currency used should be good throughout the country. But the quality of the credit bank note does not rest fundamentally upon its national character, but upon those features which have made such notes good under all conditions wherever tried.

Mr. WALDO. That is the reason you think it is a workable scheme; but the real reason that the country will support it will be because it is a national currency, which they believe to be guaranteed by the National Government, and any talk about the minutiae and the details of this are not questions that will appeal to anybody but the bankers. All the farmer wants to know is that this is a national thing, and that there is a guaranty fund backed by the National Government to pay him. If it was not for that part of the thing I would be against it.

Mr. PRINCE. If the position taken by my colleague, Mr. Waldo, of New York, is that it is a national bank note or that the nation is back of it—

Mr. WALDO. The nation is back of it with this guaranty fund. If not, I am against it.

Mr. PRINCE (continuing). Is there not danger of the layman taking the position that the Government ought not to do by indirection that which it can do by direction, and that the Government itself ought to issue the notes?

Mr. PERRIN. I believe that it is not the Government's proper function to carry on banking transactions, and that it is exceedingly unfortunate when the Government engages in them. I believe that it is through credit currency issued by the banks that the country's business interests are best served. There seems no reason why the Government should guarantee one form of bank liability any more than any other form.

The CHAIRMAN. Or one form of commerce any more than any other form.

Mr. PRINCE. I quite agree with you, and I think that is the line we should all take. This is a permission to the bank to issue an elastic currency, based upon a guaranty fund and a tax, which will make absolutely safe in the hands of the public the notes that you issue, and not regard it as a national note at all, because the moment you have the nation back of it you raise the old greenback idea—that if the nation is back of this note and permits you to do this, why ought it not to do it itself directly?

Mr. PERRIN. We certainly could have no better illustration of the unfortunate result of a Government issue of money than in the greenbacks.

(Informal discussion between the chairman and Mr. Waldo followed.)

Mr. WALDO (continuing). The only question in the minds of the public is whether in some form or other, either by a guaranty fund or by a deposit of bonds, the nation stands behind these notes. It does not make any difference in what form that takes place. In other words, there should be, to my mind, a national currency of some kind, and that is the only form in which the notes can be absolutely good in the mind of the public when it goes away from home. To get back again to the concrete illustration in Governor Powers's own town, the note of his bank, without any guaranty by bonds of the United States, would be held to be absolutely good if he had been in business any length of time. But if his note got to New Mexico or California there would be a grave doubt down there whether it was good, and there would be a report on it. There would have to be a banker's report, as there was on the old State-bank notes. What I want to make plain is that this is just as much a national currency as a national-bank note is to-day.

The CHAIRMAN. I do not think it is.

Mr. WALDO. I think it is so far as it is used by the public. Of course it has the credit of the bank behind it. So does the national-bank note have the credit of the bank behind it—authorized by the Government—and the real difference here that it is an additional issue of currency that will naturally be redeemed whenever the necessity for it has passed.

Bearing upon the question as to whether the issuance of this credit currency will increase the speculation, if I understand Mr. Perrin correctly, he estimates that there is about \$200,000,000 of surplus funds in the country that are sent to the business centers as soon as the movement of the crops is over. Is that correct, Mr. Perrin?

Mr. PERRIN. It is estimated that \$200,000,000 is transferred from the centers to the interior for the crop movement.

Mr. WALDO. That is substantially what I mean; it must come from the centers to the country banks from whence it first came. This money the country banks desire to loan about nine months in the year, do they not?

Mr. PERRIN. Perhaps half the year—perhaps slightly more than half.

Mr. WALDO. The only place they can loan it and get it when they want it is in the centers where they get 2 per cent on deposits with their agents?

Mr. PERRIN. That, perhaps, is too comprehensive. The country bank, finding its loanable funds increasing, may carry some portion with its reserve agents at 2 per cent, pending its investment at a higher rate; commercial paper will be bought, some portion may be loaned on call, but necessarily some portion will take the form of increased balances in the centers.

Mr. WALDO. Upon the average, if I understand you, that amount is about \$200,000,000 that has to come from the centers back to the country to move the crops.

Mr. PERRIN. Yes.

Mr. WALDO. That money is loaned in the centers, or a considerable portion of it is loaned in the centers?

Mr. PERRIN. Whether loaned or whether in the form of balances, when money is shipped to the interior, the depletion of the lawful money reserve entails a contraction of credits of four or five times the amount of money shipped.

Mr. WALDO. Your idea is that the issuance of this credit currency will permit the business centers to either send their own notes or allow the country banks to issue their own notes to move the crops without disturbing these loans that have been made on the basis of this \$200,000,000?

Mr. PERRIN. Yes.

Mr. WALDO. There will be no more money to lend than there was before by reason of these credit notes, except during the three or four or five months of the year when the crops are being moved; then, of course, this amount of money will remain there, will it not?

Mr. PERRIN. Strictly speaking, money is not lent, but credit. The issuance of these credit notes would not mean any increase of credit, but simply an exchange from a bank-book credit into credit notes, the liability of the issuing bank being the same in either case.

Mr. WALDO. Then the final result of the issuance of this credit currency will not be an increase of money to be used in speculation, but the continuance of the loans made in business centers when crops are not moving; instead of having to call it in, it will stay out the year round?

Mr. PERRIN. The issue of credit currency would not mean an increase of money nor of bank liability, and such issues could not further speculation in Wall street. They would permit the continuance of existing credits. The enforced speculation would be avoided, which comes through the operation of our present currency system. The more stable the conditions the less speculation.

Mr. WALDO. That is the only point I desire to make by these questions, namely, that there would be no increase in the actual credit for loans, but simply a continuance of the same credit the year round.

Mr. PUJO. What relation, if any, is there between the principle of this credit-currency system advocated by you and the suggested repeal of the law which prohibits the deposit of more than \$3,000,000 of lawful money during the calendar month for the purpose of withdrawing a proportionate amount of the bonds held for circulating notes?

Mr. PERRIN. If the currency commission's recommendations are enacted into law, many banks will wish to increase their bond-secured circulation in order to secure the maximum credit notes issue, and some will wish to reduce their circulation for the same purpose. The restriction of the retirement of bond-secured notes to \$3,000,000 per month would greatly hamper any such adjustment.

Mr. PUJO. Would it place it within the power of consolidated financial institutions to create a contraction of the currency to bring on a financial panic at any time?

Mr. PERRIN. It would furnish no possibility which does not exist now, by combining to lock up lawful money.

Mr. HAYES. In the discussion between Mr. Waldo and Mr. Perrin it seems to have been agreed that there would be no diminution of

the credits if this permission were given to issue credit currency to the national banks; but it strikes me that there must be a diminution of 15 per cent of the credit currency issued in the country banks that would be withdrawn from circulation and 25 per cent diminution in the circulation in the reserve cities; so there would be that contraction.

Mr. PERRIN. Credit notes are not an increase of bank liability, but simply expressed in a different form. The reserves remain the same.

Mr. HAYES. I think that is so.

Mr. PERRIN. It has been suggested that a higher tax be imposed and that no reserve be required against credit notes. In operation this would mean that if \$1,000,000 of bank-book credits were exchanged into credit notes, the reserve of \$250,000 carried against the bank-book credits would be available as the basis for new credits of \$1,000,000. This would mean expansion and inflation. It does not seem the part of prudence to consider entering a period of increasing business demands with diminishing strength. Surely the sounder plan is the constant maintenance of adequate reserves. From an economic standpoint a reserve of 25 cents against \$1 of liability is just as important proportionately as a reserve of \$25,000,000 against \$100,000,000 liability. If reserves are not carried against credit notes, with what are they to be redeemed? A higher tax provides no means of redemption.

ADDITIONAL STATEMENT OF MR. McCORD.

Mr. McCORD. During this period of national banking which you refer to, in which the failed banks showed 78 per cent dividends from their assets, there have come into existence three important laws affecting the credits of this country. One of those was the national bankruptcy act, and it came in the sixties and went out in the eighties; another was the specie redemption act of 1883; and the third was another bankruptcy act which was enacted in 1898 and is still in existence. And yet, with those disturbances the assets of these banks regardless of the bonds have been fully able to sustain a credit currency.

Thereupon at 1.30 o'clock the committee took a recess until 2.30 o'clock p. m.

AFTERNOON SESSION.

COMMITTEE ON BANKING AND CURRENCY, HOUSE OF REPRESENTATIVES, *Wednesday, December 12, 1906.*

The committee reassembled, pursuant to the taking of recess, at 2.30 o'clock p. m.

The CHAIRMAN. It is my opinion, and I think we all agree, that these hearings have been of the most extraordinary character, and they have been so largely because the gentlemen addressing us have been allowed to proceed until they finished, and I think if you gentlemen have questions to ask and will just make a note of them while the statements are being made, we will all be better satisfied with the results if you will present them at the end.

STATEMENT OF MR. JOSEPH T. TALBERT, OF THE COMMERCIAL NATIONAL BANK, OF CHICAGO, ILL.

Mr. TALBERT. If you will allow me to suggest, Mr. Chairman, I think very frequently a question will bring things to the mind of a speaker which otherwise he might not think of, and I have no objection to being interrupted by questions.

The CHAIRMAN. If the gentlemen will make notes of the questions they desire to ask while you are speaking, they can ask them at the end of your statement.

Mr. TALBERT. What can be said by me on this subject now is very largely repetition.

The CHAIRMAN. We know that.

Mr. TALBERT. In order to elucidate, and, if possible, to amplify and strengthen the arguments of those who have gone before me, I shall of necessity go over the same ground.

The detailed features of the proposed plan have been so ably presented, so thoroughly discussed, and so carefully covered by Mr. Forgan, Mr. Wexler, Mr. McCord, and other members of the commission who have preceded me, and the practical working of the plan has been so fully explained and so well argued in detail by Mr. Perrin, that scarcely any new phase could be mentioned. At most I can only reiterate and confirm their statements, here and there perhaps venturing some enlargement of their ideas or suggesting the consideration of some question from a different point of view.

Before going into the details, however, I wish to say a few things about the plan as a whole—as a currency-reform measure—and of the conditions and considerations which brought about its unanimous adoption in its present form by the commission.

Among other criticisms of currency plans in general, it has been charged that bankers themselves could not agree, and it has been urged with considerable force that until they could unite upon the recommendation of some safe and sound plan it would be well-nigh useless to ask Congress to consider the question. Fully appreciating the justice and force of this criticism, and mindful also of the popular prejudice, not only in the minds of the public and the average business man, but among bankers themselves, against alleged "asset" currency, and knowing the reluctance of national legislators under such circumstances to deal with legislation of so far-reaching a character, except under stress of necessity, we determined, in framing this plan, to proceed with caution and conservatism. We knew that a mistake on our part would be fatal. In order, therefore, to "clear the decks" and to leave ourselves perfectly open minded and unbiased, every plan, which to our knowledge had been heretofore advocated, was discarded.

The commission proceeded, not to prepare a set "plan," but to lay down a few fundamental principles, upon which disagreement was impossible, to the economic soundness and practical wisdom of which we could unanimously subscribe. Thus we proceeded step by step, considering each proposition from every possible point of view, not only with regard to safety and soundness, but with reference to practicability and political expediency as well as to its probable reception by the public and the possibility of favorable consideration by Congress.

We not only kept all these things in mind, but we remembered that we must be moderate and not undertake too much at once. And here I wish to say that for all these reasons we did not go so far in proposing reformation as some of us felt should be done. We contented ourselves with the enunciation of a few postulates, believing that the principles embodied would, if enacted into law, constitute a long and important step in the right direction, and believing also that it would be far easier to take other important steps when the currency which we propose has been given an opportunity to demonstrate its soundness, efficiency, and usefulness.

We appreciated the practical difficulties of the situation no less from our point of view than from that of the lawmakers themselves. Among these difficulties I may mention the large number of widely scattered independent units in the national system—which are subdivided by statute into three classes—existing under varying conditions of commercial and industrial activity, all of which (even the smallest and in the remotest regions) must be accorded equal privileges without discrimination.

And here I may say that it is within the recollection of all of us that twenty years of usefulness on the part of the national banks were required before the people more than tolerated them or looked upon them without prejudice.

Among other difficulties, I may mention the popular prejudice against all credit currency, which prejudice is based upon the experience with State-bank issues, and also, in no small degree, upon a vast amount of misinformation, or lack of any information at all, on the subject.

These facts may, and very likely will, necessitate a considerable campaign of education before the public understands the question or appreciates its importance and becomes willing to accept even this most conservative and safe form of credit note.

The result of our deliberations has been laid before you. Every line, every clause, every postulate, every recommendation has been carefully weighed and considered in full knowledge of the conditions and circumstances I have mentioned. We do not claim the proposed plan to be ideal or perfect. We were obliged to sacrifice something to secure unanimity among ourselves, something more to popular ideas, and much to expediency, but I do not believe we have compromised economic principles. I will say, moreover, that I do not believe if such compromise of principle had been involved the commission would have come to a unanimous agreement.

I am perfectly sure that we have matured and formulated, and do now recommend to your favorable consideration, a plan that is not only economically sound, but thoroughly workable and practicable in every detail, and that in proportion to its volume it will be as elastic as any credit currency in the world, considering the extent of our country geographically and its diversified interests to be served. But we should not expect too much of it, and we do not promise everything. One small measure of reform can not work wonders, nor enable an inadequate system to perform ten times the amount of work for which it was designed.

The question of security of the notes, and the reasons for not recommending that the notes be made a first lien on the bank's assets, the relative advantages and disadvantages of high and low taxes

have each been fully explained and ably discussed. I shall therefore omit consideration of those features and pass on to others not touched upon.

It has been said in disparagement and criticism that this was essentially the New York Chamber of Commerce's plan, and naturally was favorable to the banks of New York City, and especially to the speculative element of Wall street. This is not true. Certain features in this plan are similar to those proposed in other plans, including the chamber's plan, but no plan was ever read, to say nothing of being considered in detail, as such before the commission. The plan laid before you is our own plan. It was conceived and wrought out step by step by the members of the commission, hailing from every section of the Union, representing city and country banks, big and little, State, national, and private, trust companies, and savings banks. It is the embodiment of our best thought, as well as of our most serious, earnest, and unselfish convictions.

We have striven to submerge self-interests and to eliminate every vestige of local, sectional, or partisan influences. We trust, and do not doubt, that you will consider these circumstances and deal with this measure in a similar spirit. There should not be—and if the interests of the people of the whole country are considered, there can not be—any division along either partisan or sectional lines in considering this measure, nor, indeed, in any other financial legislation. The credit of our nation and the welfare of its business institutions are above and apart from all such considerations. Currency is the lifeblood of commerce. The whole industrial body will quickly become diseased if the blood be tainted with the virus of partisan politics.

As to the criticism that this measure will, in its practical operations, work in aid of speculation in Wall street or in the interests chiefly of banks in the reserve and central reserve cities, I think Mr. Forgan fully disproved it. In all large industrial communities, and particularly in our large reserve and central reserve cities, credit is so highly developed that we have practically no need (except for small items like pay rolls and the cashing of checks) for this credit currency. Large business transactions are all done by certified checks or cashiers' checks in cities and settlements are effected through clearing houses. The benefit which New York or Chicago banks would derive from credit notes would not be in the extension of their credits. They have all the facilities required in that direction already.

What we need is to be relieved of the annual depletion of our "lawful reserve" and the consequent contraction of our local loans to the detriment of the legitimate merchant and business man. Chicago is a manufacturing, trading, and distributing center and not a speculative city. It is true we have a wheat pit and perhaps some speculation on the stock exchange, but very little in proportion to the total volume of business done. I will touch on that later, though the amount is insignificant. But we do find ourselves every autumn in a more or less uncomfortable position, brought about by the change which has occurred within a decade and which is increasing every day in banking methods, particularly in the methods of interior banks. I mean in the investment of their funds in commercial paper, which funds they formerly carried on deposit with their reserve agents.

The country banker is becoming independent; indeed, he not only is independent, but the financial position of city banks with respect to their loans and reserves is largely dependent upon his operations. He holds the purse strings. A well-known gentleman from Topeka pointed out in a speech the other day that in ten years the deposits of banks in Kansas had increased from \$31,000,000 to \$140,000,000. Similar gains have been made by banks in nearly all other States and very largely in the West and the South. These gains by country banks are reflected to a considerable extent in the increased deposits of city banks, but the country banker is becoming an investor and no longer a borrower. He is beginning to buy commercial paper in large amounts in the cities. These investments are made through his city correspondent, as a rule, and have proved to be safe and profitable.

One small bank that I have in mind, which up to a few years ago was a borrower, within a week past, during a period of "close money" in the cities, in a single day purchased \$100,000 of commercial paper in Chicago. This lending in the cities by country banks has grown to the extent not only of millions but of hundreds of millions of dollars annually. This paper is made by legitimate borrowers, by the city manufacturer, merchant, and dealer, and it constitutes the soundest and best asset in the banks, and its payment may confidently be relied upon, not only in easy times, when there is plenty of money, but in times of stringency, because being backed by good assets of a convertible nature such notes possess the "liquidating power." The country bank buys these notes now, maturing next April, May, or June, and again buys four or five months' notes maturing in September, October, or November. These notes are made payable chiefly in cities like St. Louis, New York, or Chicago, and when they approach maturity are sent to these cities for payment.

The country bank says: "Credit us with the proceeds when paid." That payment creates a "book credit" in favor of the country banker, and he orders shipments of currency against it (fives and tens and twenties). These shipments deplete the reserves of the city banks, which at the same time are obliged to make loans to the merchant or manufacturer to take up the note paid to the country bank. The result is that we bankers in the reserve cities find in the autumn our cash reserves going down in spite of every effort and our loans going up. This is not due to speculation. It is legitimate, and has been brought about by changed and changing conditions. It is no fault of the city bank, but the condition should be recognized and adequate provision made to meet it. The country banker is not to blame; it is a source of profit to him and a safe and legitimate field for the use of his funds.

Now, what we desire is that the country banker may, in common with ourselves, be permitted to draw at such times upon his credit, make use of it in the form of notes for these temporary purposes, and to leave the loans of the city banks undisturbed and their reserves undepleted by these excessive drains. That is all we ask. We have all the means of handling local credits and meeting our own local requirements that are necessary, and do not require credit notes for such purposes; but we do need the means to protect and maintain our reserves without resorting to the drastic and disquieting expedient of forced contraction.

It has been said that this is a "bankers' measure," framed by bankers, presented and advocated by bankers, and presumed to be in their interest. One critic said: "The people would not tolerate the framing of a tariff measure by the trusts, then why should they sit complacently and permit the bankers to frame a currency measure?"

The answer to both criticisms is that a bank's prosperity depends upon the prosperity of its patrons. The failure and lagging of trade and commerce mean poverty and loss of profits to the banks. We bankers are not engaged in warfare with trade and industry, but are their supporters, allies, and friends. What is to their interest is to our interest. If we are to profit by this measure, so is the borrower, also; and his gain will be greater than ours, both by reason of a certainty of receiving necessary accommodations at bank and on account of lower, more equitable, and uniform interest rates.

I am not an alarmist nor a pessimist, and I wish to emphasize my belief that even if you do not report favorably upon this or any other currency measure the country will survive. Legitimate business may and will be hampered, development in some sections retarded, institutions strained and industries threatened and some of them embarrassed, but they will not all be overthrown. We should realize, however, that now we are at least approaching and are probably very near to the climax of a great era in the expansion of commercial credit. This expansion has been encouraged and promoted, if not caused, by the enormous accumulation of wealth. The day of liquidations must come; it is our task to provide ways and means by which that end may be accomplished with the least amount of loss and suffering. Since eventual liquidation on a large scale is inevitable, and since the time of its postponement largely depends upon the gracious favor of God, who so long has blessed us with bountiful crops, it would seem not only wise to make such provision against it as we may be able in advance, but the height of folly and shortsightedness to delay it. There is wisdom still in the admonition to prepare for war in times of peace.

The great credit structure of our country, enormously inflated as it is, rests, so to speak, upon a financial "powder keg." It is not a question of whose fault it may be, or how it came about, but of how to prevent an explosion and to protect the business interests of the country against the impending crisis. If the means of defense and protection are not provided, the country may suffer disaster from which half a generation may be required to recover. I realize that this is a strong statement, but I do not think many of us appreciate the gravity of our business and financial situation, in which so great a credit structure rests upon so narrow and rigid a foundation. Time and time again New York City which, as Mr. Forgan pointed out, is and of necessity must be the financial center of the country, has sent its calls for help to the Treasury Department.

The Treasury has responded in every possible way. As to the wisdom of that policy, which may be debatable, I express no opinion now, but settlement day must come. The money which the Treasury has deposited in banks must be paid back. At most, the assistance can be regarded only as a temporary makeshift, and I can not too strongly impress upon you that when repayment is demanded by the Treasury, as its own necessities may require, the banks holding such deposits must inevitably contract their legitimate loans to a

degree greater than we have yet experienced. It may mark a turn in our prosperity, and it should be remembered that the "slide is a long way down."

The elements of panic or depression, if not all present, at least are accumulating, and the possibility and even probability of a materialization of one or the other should immediately and without hesitation be discounted. Failure on the part of Congress to realize these conditions and its refusal to provide relief must inevitably cause cautious and conservative bankers (in the protection of interests which it is their duty to conserve) to begin to increase reserves, curtail credits, and prepare for the financial squall which not only is threatening, but which a period of great national prosperity, inflation of credits, and indulgence of speculation has conceived and which time must and will bring forth.

It is one of the serious defects of our present financial system that during such periods every banker must of necessity sustain himself independently, and by drawing from the resources of other banks, instead of standing united and each gaining additional strength and support from the resources of his own credits.

I am not among those who claim any extraordinary results are to be expected from this measure that we propose. The issue is entirely too limited to give the relief the country may need; but it will do much good, and points out the way for future and greater enlargement and extension of the note-issuing power. In considering the very conservative limit of issue proposed by this plan it must be remembered that not only are the credits of national banks now inflated, but those of State and private banks as well, and in a crisis these will feel the strain equally great, and the need for credit notes of the national banks be thereby proportionately intensified. We believe confidently that its usefulness will be quickly demonstrated, its efficiency proved, and its existence amply justified when tried.

Entirely apart from currency reform, there is another matter of vital importance which I might almost persuade myself to say is more important and urgent than this currency measure itself, but which should be considered in this connection. I refer, of course, to the burdensome and iniquitous subtreasury system under which we labor. It is a wonder that financial institutions get along as well as they do, considering the facilities the Government gives them. It is no exaggeration to say that the whole financial structure of the country would fall if every individual, every corporation, every State, county, and municipality should conduct its business affairs in the manner in which the United States Government does in locking up every dollar of daily receipts in its strong box. We soon should have no money to do business with. I think that finding ways and means promptly to release from the subtreasuries and deposit the money of the Government with the banks in the same manner that other individuals and corporations do, at a fair and equitable rate of interest, would go a long way toward averting the panic which will and must come unless the obviously sensible methods here suggested are taken to prevent it.

Going back to the matter of speculation in New York; the acute situation there is not the fault of the banks and is not aggravated by any action on their part. Bankers see and realize the dangers of speculation quite as much as the remainder of the citizens, and probably a great deal more; but they are powerless to prevent it

under existing circumstances. A large share of the blame rests upon banks outside of New York. Mr. Perrin finely illustrated this morning how delicately exchanges were balanced between cities, and how it was his practice to buy New York exchange in Cincinnati if he could get it cheaper there than in St. Louis, or to buy Chicago exchange in St. Louis if he could get it cheaper there than in Cincinnati. The whole theory of trade and commerce is to buy a thing where it is cheap and sell it where it brings a better price. This law applies to money no less than to any other commodity. I will illustrate this by some foreign exchange transactions: Our bank is now doing a foreign business, and through the operations of the foreign department we have opportunity to study the relation and interdependence of financial conditions in one country with reference to other countries.

Suppose in the morning we receive a cable (they are four or five hours ahead of us in time) from a bank in Berlin saying that they can offer us \$300,000 of bills on American importers at a certain price. Those bills are drawn on first-class houses. The bank inquires at the same time how many German bills are offered in our market and the quotations. We call up the bill brokers and large exporters, and perhaps, as a result of these negotiations, buy the equivalent of \$250,000 in reichsmarks on Germany. We cable what we have done, and a settlement is made of both transactions at the close of business. Either we deposit with the London agency of the German bank the difference between bills bought and bills sold them, or they deposit, as the case may be, the difference to our credit with our London bank. The bills are thus "swapped" and actual payment is made of the difference only, as in clearing house settlements.

Suppose that the day's balance resulting from such transactions has been against us \$50,000, and that we have not the required funds in London to make settlement, then we must go into the open market and buy the exchange or a "cable transfer" of the necessary credit. When those transactions are multiplied to a very great extent, the balance of trade being against us, it brings about the exportation of gold for the purpose of effecting these settlements and making good the accumulated "debit balances." The importation of gold is the result of reverse conditions. This being the case and following the principle that it is legitimate to buy any commodity, whether it be exchange, credit, gold, merchandise, or what not, where it is cheap and sell it where it is dear, there exists a certain class of foreign bankers or bankers who make a legitimate business of "scalping" (it is not called "scalping," but that is what it is) international exchange.

If they find to-day that London exchange in Paris is "cheap" and that it is a little higher in Berlin, as expressed in pounds sterling, they may sit in an office in New York or Frankfort and buy by cable in Paris all the sterling they can get and sell it in Berlin, making settlements in London by cable transfers as explained. They have made, perhaps, a thirty-second or a sixty-fourth of 1 per cent profit, which is scarcely enough to consider except on an enormous volume of transactions. But this explains how and why money seeks the market where it is dear and why this delicate instrument of credit is so sensitive and is so easily influenced in one market by the conditions in another. Wherever money is high, there it will be attracted by these "arbitrage" transactions. It does not matter whether we are

dealing with domestic or international exchange. Any other condition would be unnatural and unhealthy.

Now we are in position to consider how and why the help which has been rendered by the Treasury Department in the importation of gold has affected us adversely abroad. These calculations in foreign transactions, which are so fine, as I have pointed out to you, that the profit is only a thirty-second or a sixty-fourth of 1 per cent, are figured so closely that every fractional item of cost, even down to postage and the government revenue stamp of a few pfenigs or centimes, is included. In importing gold the carrying charges and the loss of interest while the money is in transit are important items. All these costs are calculated as accurately and carefully as an assayer or a chemist would search for a "trace." Cost is computed to the vanishing point.

Now, when the balance of trade and the resulting parity of exchange is such as not to justify the importation of gold without loss, the Treasury Department, in a moment of our need and to help our position, steps in and injects an element into the situation by the elimination of an item of cost—the interest in transit—which circumstance the foreign banker in his computations has not anticipated nor reckoned upon. That element is the free lending by the Government (for the time when the gold is in transportation) of the amount proposed to be imported, with the understanding that the same sum of gold is to be returned to the Treasury as soon as it is imported. From our point of view it is legitimate and helpful, but you will have no difficulty in seeing that such a transaction upsets at once and completely the calculations of the European financial world, and it sets them up in arms against us, because it forces the depletion of their reserves at a time when circumstances not only do not call for it, but do not justify it. I dare say we should feel resentful if the German or British Government should in like manner, by the lending of credit or funds to their banks, force the depletion of our bank or Treasury reserves at the time when we could ill afford it.

There probably is not a continental or London banker who does not feel resentment toward us and this method, or who would not use every legitimate means to force back to London and Paris the gold which we have brought over under forced and fictitious conditions. This is a broad statement, but I believe it to be the truth, and it is the conviction that it is the truth, and that our system demands revision if we would continue our prosperity and if we would have our country occupy its rightful position as one of the leading financial nations of the earth, which constituted my chief motive for begging that these matters receive your serious consideration and that the conditions which bring about a necessity for such subterfuges be promptly and properly remedied.

That remedy lies in the immediate discontinuance of our infamous subtreasury system and the deposit amongst the banks of the idle and unneeded portion of the Government's funds, including its daily cash receipts.

I promised to say something about speculative markets and the legitimate business necessities which call them into existence and support them. I shall talk about the wheat and the lard pits and the cotton exchanges, because I know more about them than about the stock exchanges. What justifies one, however, justifies all, since they are conducted on the same principle. Suppose you take one of

the big packers, who buys, let us say, \$100,000 worth of hogs on foot, which he intends to slaughter and convert into meat and lard. He buys them at a certain price. It has been said that he regulates that price. Perhaps so, but if at all, not to the extent that is popularly supposed.

But whether he does control it at the time of purchase or not he certainly does not control the price forty-five days hence; and if he did not sell the future product which is to be manufactured from to-day's purchases he would be speculating to that extent, because it requires forty-five days to manufacture and sell the product. To use a trade phrase, it is necessary to "hedge," and it is done by selling futures. If the product goes down, he does not lose, because he has already sold it. If it goes up, he does not "lose" the difference, because his legitimate profit was insured and made by the first sale.

The grain merchant would be speculating if he did not "hedge" in like manner. The elevator man is engaged in the legitimate business of storing and merchandising grain. He has, perhaps, some millions of dollars invested in terminal elevators and warehouses. His business is that of a warehouseman primarily, but in order to fill his warehouse he is obliged himself to buy and store grain—to become a grain merchant. Therefore, he buys grain on his own account and fills up his bins. His legitimate business is carrying that grain through the season until the millers or the markets of the world take it.

It is perfectly clear that if he thus filled his elevators and took the risk of fluctuating markets he would be speculating to the extent of all the grain he carried. What does he do? Every hundred thousand bushels he buys is sold when bought. I do not mean he sells actual grain and delivers it, because he intends to deliver the actual grain to millers the next spring, or perhaps to export it, but he goes into the "pit" and sells that much "future" grain and thereby protects himself against a possible decline in the price of the actual grain on hand. Under ideal conditions the price of "futures" would be the present cash price plus the cost of carrying, which means interest, insurance, storage charges, etc., with a reasonable margin of profit to cover labor, shrinkage, and incidental risks. These are the theoretical conditions, and if they always, or even usually, existed, the business would be safe and profits sure; but they seldom do exist in fact, and it would therefore be extremely risky and speculative if the grain merchant should neglect to insure himself against losses. He must sell as he buys. Such sales, though they do not contemplate actual delivery, are in no sense speculation. They are perfectly legitimate, and without them there would be no established or permanent grain market.

Having thus protected himself, it makes no difference in the legitimate conduct of his business whether grain goes up or down. He stores the actual grain until purchased by and actually delivered to the miller or the importer, the differences in price being adjusted with the "speculator" (who bought it in the "pit") by means of margins from time to time as the fluctuations may have taken place. It is the same with the cotton merchant in the South. Having bought cotton, he is obliged to sell against it pending sales of the actual commodity to spinners or exporters. This legitimate necessity in pork and lard, in grain and cotton, of course gives opportunity to speculators.

The fundamental basis of all the operations of stock and commodity exchanges is legitimate, and if it were not legitimate, those exchanges could not exist. Speculators could not thrive on themselves. It is the legitimate business of the country upon which they prey. Their existence is to be deplored, but it is not within human power to prevent it without seriously hampering legitimate business operations. Therefore the existence of speculation and the fear that speculators might profit should not be permitted to stand in the way of the currency relief which the business institutions of the country so greatly need.

The CHAIRMAN. Are there any questions to be asked of Mr. Talbert?

Mr. LEWIS. Mr. Chairman, I should like to ask Mr. Talbert several questions.

The CHAIRMAN. Yes.

Mr. LEWIS. Mr. Talbert, bearing upon the line of speculation and protection, I quite comprehend what you said about the dealers protecting themselves. I live in Georgia, and I know that our buyers buy cotton and ship it to Europe, and consequently they must sell cotton on the New York cotton exchange to protect themselves. That is not speculation.

Mr. TALBERT. It would be speculating if they did not do it.

Mr. LEWIS. Yes. Let me go a little further. Take the cotton planter. It takes him a year to make his crop. If the cotton planter plants that cotton and sells it, depending on the price when the crop is made, he is simply protecting himself. But he is equally speculating if he takes his chance on the price.

Mr. TALBERT. Yes; that is speculating in a sense, but the farmer can not determine with the same degree of certainty how much "futures" he should sell. Crops are uncertain.

Mr. LEWIS. Taking the New York banks last week, I noticed a deficiency of \$6,000,000 below the legal requirements.

Mr. TALBERT. Yes.

Mr. LEWIS. What is the cause of that, really?

Mr. TALBERT. I have just explained it, or tried to do so. I have to speak only from my own experience, and I can not say what was the specific cause of this deficit, but I know that their troubles are only our own troubles magnified. It is the forced expansion of loans when we do not want them to expand, or the decline of deposits with inability to contract loans.

Mr. LEWIS. Do they not lend a great deal of money on call?

Mr. TALBERT. Yes.

Mr. LEWIS. Is not the larger part of the New York bank loans on call?

Mr. TALBERT. I do not know the percentages, but I know one or two large banks of which it is true that the larger part of their loans is on call. I will give you an illustration of the reasons why, under some conditions, that should be the case. Take a certain bank which I have in mind, one of the large, strong, and well-managed banks of New York. Its clientage, perhaps to a greater extent than that of any other bank in the city, is made up of country banks. It has large deposits. I should say most of its deposits come from country banks. If the bank did not lend its money chiefly on call, and did not keep its assets absolutely liquid, it would be unable to meet the demand of

country banks, not for loans, but for their own money in the fall, when the outflow of currency begins.

Mr. LEWIS. If they loan on call, do you not think they would do an injustice to themselves and to the country as well to violate the law by loaning down below the legal requirements?

Mr. TALBERT. If you put it that way, yes. But often it can not be avoided. Under certain circumstances it is proper and excusable to encroach upon the reserve fund.

Mr. LEWIS. Simply to take care of these call loans, which are speculative?

Mr. TALBERT. If a bank should deliberately increase its liabilities by making new loans when its lawful reserve is not good, I should say yes. But how escape it at times? We in Chicago experience that difficulty to a greater extent at times than they do even in New York, because we have no "call money" market in Chicago, while our deposits are subject to equal fluctuations and are influenced by much the same conditions. As an offset against this, however, it is a fact, arising from necessity, that the total percentage of cash means of national banks in Chicago is considerably higher than that carried by New York banks. In the autumn, late in August or early in September, our deposits begin to go down. They decline at times as much as 10 or 15 per cent in thirty or sixty days. We do not seek new loans under such conditions, but whether we want loans or not we are obliged always to take care of some good customers. Perhaps our largest depositors, whose demands are reasonable and legitimate, may come in and want money; we can not in fairness refuse them. They may be and perhaps are entitled to what they seek. It is not a question of violating the law by some encroachment on an arbitrary "reserve" fund, but a question of whether we will take care of the reasonable demands of good patrons, and in doing so preserve our own business interests and theirs, or not. If left alone, we would never deliberately and for profit encroach upon our lawful reserves. But suppose we are running along with 30 per cent reserves—which is more than usual with banks—and there comes a decline of 10 or 15 per cent in deposits. It is not a question of whether we want to, but we must pay on demand. We have the alternative of refusing to make further loans and thereby injure or lose good customers or of encroaching on reserves. It is not only natural, but the part of wisdom and business prudence temporarily to let reserves suffer. It is this condition which would be helped by credit notes.

Mr. LEWIS. You said in your speech that we had prosperous times.

Mr. TALBERT. Yes.

Mr. LEWIS. These New York banks during these prosperous times are loaning call money during the last two months at 5 per cent. What would become of \$200,000,000 of asset currency thrown upon the market to-day? Would it not be absorbed at once by this speculative element in New York for call money?

Mr. TALBERT. No; I do not know how I can make that fact any clearer or more forceful than I have already done, but I will try. The New York and Chicago banks, as well as those in all other reserve cities in this country, have already all the facilities for lending money and expanding credit that can be used. What restrains our bank to-day from lending \$30,000,000 or \$40,000,000 when rates are

so high? It is only the fact that we know we can not redeem in gold the book credits created by such loans.

Our ability to make loans depends upon our ability to redeem them. There we must stop. This is a natural and unavoidable limitation. It is one imposed on every banker, whether conservative or not, unless he wishes to face inevitable and immediate disaster. I say that the banks of this country do not need this credit currency in aid of speculation and would not use it for that purpose because they could not. Suppose you were a Wall street speculator and you came to me with first-class securities and said: "I want a loan of you on these securities." I agree and hand you my cashier's check. You deposit that check in your bank or pay it to some other broker or banker, and it comes right back to me to-morrow; I must redeem it. Credit notes, if used for loans, would come back in exactly the same way. They would not and could not stay out any longer under such circumstances than a cashier's check, because if paid out in bulk for such purposes they would be "banked" and come back for payment. Mr. Weeks questioned the other day the fact that this redemption would be prompt. Now, I shall try to demonstrate that it would be prompt and automatic, and that these notes could not be used for speculation because they would not be so good or so cheap for that purpose as are cashier's checks.

We now have the opportunity and the privilege of issuing all the cashier's checks we need without any tax or limitation whatever, all that we are able to redeem. Then why use credit notes where cashier's checks would and do answer every purpose? Credit notes would not be used for lending in Chicago or in Wall street, because we do not need them for such purposes. They would add no additional facility and in many respects be less economical and less efficient than the present method. Knowing that a cashier's check or the certified check of my neighbor bank is good, I do not lock it up in the vault and hold it until I need it. It is put through the clearing house the next morning. Why? Because my bank can offset with that check the demands made upon it, and thereby preserve its own lawful reserves. That is the reason why credit currency would be automatically elastic, the necessity under which every bank always labors to keep good its reserves.

All of us would gather up these notes and send them in for redemption in order to offset the demands made on us, and to prevent redeeming our own notes in gold. This daily offsetting would be natural and inevitable. A banker who served many years in a Hartford bank under the Suffolk system said that owing to the active redemption of notes his bank never once during the whole time of his experience was obliged to touch its gold reserve.

Mr. LEWIS. I have not been here all the time these hearings were going on, and I do not know if any questions have been asked about the Government loaning its idle money to the banks at the rate of 2 per cent per annum, without any security. I should like to hear that discussed.

Mr. TALBERT. Having in mind what I have said on that subject, I can scarcely condemn more strongly the present grossly unbusiness-like method of the Government in locking up its daily receipts. The commission recommended that a law be passed enabling the Secretary of the Treasury to deposit all the available funds of the Government

above what might be called a reasonable working balance with the banks, and thereafter to deposit its daily receipts with banks, just as any individual, corporation, or municipality does. This would go a very long way toward relieving the stringency which now exists, and which will become intensified whenever we shall be called upon to pay back to the Government the deposits now held. It can only be accomplished by large contraction of loans.

Mr. LEWIS. I do not disagree with you at all, but the real point is to put this money in the banks without any security whatever. I understand the proposition is to deposit the surplus money in the national banks without any security whatever, and that the banks would allow the Government 2 per cent interest on it. How would it be, putting this fund in the Government Treasury, to allow that interest to constitute a fund out of which the Government might recoup itself for any losses occasioned by the banks failing? Is that the bill? I do not know whether it is.

The CHAIRMAN. I should like to have you put that in the form of a question, in order that the answer may be to your question, not only for this committee but for those who may read these hearings.

Mr. LEWIS. I saw that the gentleman was not quite clear as to what I meant.

The CHAIRMAN. Just put your question.

Mr. LEWIS. I want to know his opinion of the fairness of it, or would the country approve of it, or would it be justice to the country, that the Treasury Department should lend all of its surplus money to the national banks at the rate of 2 per cent interest, without any security from the banks whatever?

Mr. TALBERT. You say, "Would the people approve it?"

Mr. LEWIS. Is it justice?

The CHAIRMAN. Do you want his opinion?

Mr. LEWIS. Yes, sir.

The CHAIRMAN. Then let us get this question so that it is a clear one. What is his opinion of the policy, that is what you mean?

Mr. LEWIS. Yes, sir.

The CHAIRMAN. Let us get the question so that you can understand it.

Mr. TALBERT. My opinion is that if the Government deposited its daily current receipts in the banks, the same as is done by other business institutions, at a fair rate of interest, and conducted all its financial affairs in a similar manner, the benefit would be so great to the whole country, and it would have such an effect on lowering interest rates and maintaining conditions of financial stability that there could be no question about either the fairness or the justice of it. In fact, it is manifestly unfair and unjust to expect banks to subject themselves to the strain, and legitimate borrowers to the inconvenience and burdens, which the present methods impose. As to the equity of it, I see no reason why the Government should be denied a reasonable compensation. As to whether the people would approve it, I can only say that the people have deposited already in the national banks of this country something like \$6,000,000,000. There is no reason to suppose they should be afraid or unwilling to deposit with the same banks a few millions more, indirectly, through the Government, on the same terms under which they have deposited so much of their own money.

The CHAIRMAN. You say "the country." You mean the people?

Mr. TALBERT. Yes; the people.

Mr. WEEKS. Mr. Talbert is quite right in referring to me as having some doubt about the redemption of this currency. Now, I am perfectly familiar with the illustration which you have given relative to Mr. Forgan's cashier's check. That is not currency; that is a check.

Mr. TALBERT. Pure credit.

Mr. WEEKS. And you would send it through the clearing house in the ordinary course of business. But some of this asset currency—that is, credit currency—which your bank has issued, comes into a Boston bank, say. That Boston bank does not send it back to you, but that very day it may have a demand from a Maine bank for some currency, and it sends that credit currency down to the Maine bank. That Maine bank passes it over the counter to Tom, Dick, and Harry, and your currency may be circulating down in that country district for the next six months.

Mr. TALBERT. Yes.

Mr. WEEKS. How is that going to be redeemed finally?

Mr. TALBERT. I think Mr. Forgan made an apt illustration of that when he pointed out how he, when agent in Nova Scotia, shipped in for redemption \$25,000 of the new notes of another bank which had only been left with him over night and which were to have been handed in bulk to the depositor the next morning. He did this in order to get his own notes out. But your Boston bank would not send my notes to Maine, provided it had not already put out the limit of its own notes. Every bank would first circulate its own notes, naturally and properly, and then, if necessary, but only when necessary, the notes of other banks.

Mr. WEEKS. Provided it could not issue its own profitably.

Mr. TALBERT. It certainly could not issue my notes profitably if it could not issue its own at a profit.

Mr. WEEKS. Yours are already issued.

Mr. TALBERT. That is the point. I am glad you put it that way. The Boston bank parted with value when it got my notes. That value was in the shape of a "book credit," or some other form of credit, which must be redeemed in lawful money. The book credit or deposit created when the depositor placed those notes of mine into the Boston bank must not only be redeemed, but a reserve of lawful money must be carried against it, and very likely also the interest paid on the balance so created. Why should the Boston bank, at a loss to itself, keep reserve against the credit created by my notes and pay interest on the amount all for my profit? Why should it further circulate my note and keep it out for my profit when it might make that profit by putting its own notes out? Such a thing might occur in a single isolated case, but it is inconceivable that it should be done to any appreciable extent.

Mr. GILLESPIE. Suppose he has already made his full issue?

Mr. TALBERT. Mr. Weeks said, "If he could make a profit on it." He could, under no circumstances, "make a profit" on the use of my notes.

Mr. WEEKS. Assuming that he has already made his full issue, then?

Mr. TALBERT. Assuming that a banker has put all his own notes out, there is then no reason why he should not pass mine. So long

as his own notes are out and he has no difficulty in keeping them out, the passing of my notes becomes a matter of no concern. Whether he will pay them out or send them in for redemption depends upon his own needs and use for them and upon nothing else. But so long as his own notes are not out, it would be a most unbusinesslike thing, not to say foolish, to assist in making a profit for another bank by circulating their notes when he might make the profit himself.

Suppose you have a thousand dollars to lend; you are in the business of lending money; you have a good customer, who applies for a loan; would you come to me, a competitor, and say: "Mr. Talbert, I wish you would make that loan. Here is a chance for you to make a good loan at 6 per cent." Would you ask and assist me to put out my funds at a profit, when anxious to make the loan yourself? Such unselfishness is not a human characteristic, nor would it contribute to business success under modern conditions. So long as your Boston bank had not its full amount of notes out, it would not pay out mine nor help me keep them out, because it would thus assist in earning money for me, with no resulting profit to itself. This is axiomatic and fundamental. It is just precisely that competition, that struggle, each bank endeavoring to keep out its own notes, and each one struggling to redeem the other's notes in order to strengthen its own legal reserves and to make room for its own notes to circulate, which would make automatic and perfect elasticity. The result is as unfeeling and as inevitable as gravitation.

I have said that these notes would be found doing service out in the harvest fields of Kansas and Texas, and would not be useful in Wall street. Redemption in large cities would be too active. There would be no purpose in putting them out for a day. Mr. Perrin made that clear this morning. In the interior it would be different. Banks in the South and West require, in the fall, all the small notes they can get, and after putting out their own notes, would not care whether the additional notes needed and used were issued by a bank in Boston, New York, or Chicago. Take a bank in New Orleans, for example, because they are typical: In the cotton season their currency requirements, in proportion to their deposits and resources, are enormous. At the season's end the condition is reversed; money begins to drift back and to accumulate in equally large amounts. The bank begins to need St. Louis, Chicago, or New York "exchange." They need eastern "exchange" because their customers are beginning to pay their eastern debts.

This demand for "exchange" naturally sends it to a premium. The amount of the premium depends upon the excess of demand over the supply. When the demand becomes excessive the premium rises to a point equal to the cost of transporting the accumulated currency to the place where payment is to be made. Therefore as soon as the New Orleans banker finds that he needs "exchange" more than the notes, he will assort these credit notes and send them in for redemption, because their transportation is free so far as he is concerned. He can thus obtain the required "exchange" without cost. Since he could not buy exchange at par, and could not ship lawful money without cost, is it not certain that he would ship the credit notes? Would not this fact, aside from competition, of necessity bring the notes in? To make the point still more clear: Why is not gold coin now shipped back and forth over the country instead of currency? It is because of the difference in express charges. The

cost for transporting gold is nearly double that of paper money. The result is that currency is always shipped unless it is absolutely necessary to send gold.

Now, in this credit note plan which we are advocating we have purposely set a "premium" on redemption equal to the cost of transportation. The country bank is thereby enabled to ship notes in for redemption at the expense of the issuing bank. It is perfectly certain that credit notes will come in under these conditions as soon as the need for them is over.

The CHAIRMAN. Let me suggest just one thought. Under your suggestion they would go from your bank under exactly the same conditions as the checks and drafts you hold, would they not?

Mr. TALBERT. Yes; no difference whatever. The notes are not money at all; purely credit. We should keep this fact firmly in our minds. The notes are simply convertible into money.

Mr. WEEKS. They are taking the place of money.

Mr. TALBERT. Yes; they will do the actual service of money, and to that extent differ from book credits and are more serviceable than book credits; but their character is the same. The important distinction between a check or a book credit and money or its representatives is that the use of the one is restricted to a few transactions and is short lived, while the note circulates freely and performs far more service. The check is a highly specialized and very useful form of credit, but its uses are restricted because specific in character. Credit notes are related to checks in that they are pure credit and that the efficiency of both check and note depends upon redemption, but the credit note is less restricted in character, payable to bearer, passes without indorsement, circulates freely, and is more serviceable, therefore, than a check for like sum. They both differ from real money—gold—in that gold possesses within itself the intrinsic value which it represents and does not depend upon credit or redemption for its usefulness or its value as money.

Mr. WEEKS. This currency will cost the issuing bank about 4 per cent?

Mr. TALBERT. Yes; about that.

Mr. WEEKS. Suppose we come to a time, as we have within the last two or three years, when money is not worth 4 per cent?

Mr. TALBERT. These notes would absolutely disappear from any community where money was worth less than the cost of issuing credit notes.

Mr. WEEKS. Why would they disappear?

Mr. TALBERT. Because in the natural course of business every note would drift into some bank which would present it for redemption, and as there would be no purpose in a bank reissuing them at a loss they would not be put out.

Mr. WEEKS. But suppose your notes are put in Governor Powers's bank, down in Maine?

Mr. TALBERT. They are bound to come in just the same. If I send my check to you to-day, how long do you keep it? Just long enough to bank it in Boston.

Mr. WEEKS. But these notes are not in the hands of the banks. They are in the hands of individuals.

Mr. TALBERT. Of course, so long as a particular note remains in the pocket of an individual, there will be no redemption of that note. In the aggregate, a certain amount of these notes naturally

would stay in the pockets of the people, but the percentage would be quite small. A few might be lost or destroyed, but the amount would be negligible. The bulk of the notes would move and circulate, gravitating through the natural channels of trade into the banks. The permanent note circulation in the pockets of the people would remain as now, the bond-secured notes, because whatever profit there is in such circulation depends upon keeping the notes out continuously. The result is that the bond-secured notes are forced out, whether needed or not. There could be no such incentive to force out credit notes when not demanded any more than there would be now pleasure and profit in the forced issue of checks or drafts. It is simply impossible. A bank does not and can not issue more drafts or cashiers' checks than its patrons want.

Mr. GILLESPIE. You have spoken of the efforts of the banks to redeem and retire this currency, of the opposing forces there; you have said that it is profitable to keep the currency out, and we have one force striving to keep the notes out and another force drawing them in.

Mr. TALBERT. Yes.

Mr. GILLESPIE. Would not these forces practically neutralize each other and leave the notes to float about over the country? If you give them the qualities and functions of the national bank note, do you not take them out of the realm of ordinary checks, credit or deposit currency and put them on an equality that changes them so that they become themselves the ex-tenders of credit? First, here is a bank up in New York that will send its notes down in the cotton fields of Texas; and they will do it. A man wants to get them sent there, and he may make an arrangement with a bank in Fort Worth to send those notes out, and he says, "I will do the same with your notes." Now, the point that I make is to confine these notes to the nature and quality of checks, and not to attach the quality of a paper money to them and let them float around permanently among the people of this country.

Mr. TALBERT. If you would put that in the shape of a question, perhaps I could answer it more directly.

Mr. GILLESPIE. If you give this credit currency the same qualities that the present national bank note has, to pass from bank to bank over the country, and there is this effort on the part of the banks to keep these notes out, as well as the opposing force to draw them in; if there are these two opposing forces, they are liable to neutralize each other, especially with a little understanding between banks. Now, would the notes not naturally stay out among the people and do the work of money and inflate credit, and then would not your trouble come when you were trying arbitrarily to draw this in, especially if you wanted to stop interest, and deposit lawful money in order to stop the interest? Would not those notes stay out?

Mr. TALBERT. I think I fully understand what you mean. I can answer you in no better way than by laying down a fundamental principle of economics, that whenever there is maintained against an issue of credit notes a sufficient reserve in gold, and whenever the means of redemption is made easy, and convertibility on demand certain, the volume of currency may with safety be left to take care of itself. Bankers could no more keep those notes out by understanding among themselves than they can keep out their cashier's checks by agreement. The premium we have set upon redemption must and

invariably will bring them in. They can not and will not stay out. I dare not issue a check unless I have the money with which to pay it. I dare not put out notes unless I have the lawful money to redeem them. Make these credit notes easily convertible and back them up with a strong reserve, as we have provided, and they will not stay out a day longer than needed. There can be no expansion of such a currency, because redemption in gold will be available when the holder of the note desires it.

The CHAIRMAN. May I ask a question there for elucidation?

Mr. GILLESPIE. Certainly.

The CHAIRMAN. You used the phrase that their being out would be the basis of credit. Is that possible, that one of these notes should be the basis of credit?

Mr. TALBERT. No. On the contrary, their being out compels the maintenance of the same reserve against them as if they were a book credit. They are, in fact, the representative of a "book credit." They represent an amount at the credit of "circulation account." The reserve must be kept to meet these notes exactly as is now kept to meet deposits. The note is not expansion or inflation of credit, but merely a change into a more useful form of credit. The whole question, aside from safety, hinges upon a strong reserve and active, efficient redemption, all of which are provided in the proposed plan. With these provisions credit notes become the safest, most elastic, most useful and economical of all the forms of currency, but without adequate gold reserves and facilities for redemption it would be folly to issue them.

Mr. GILLESPIE. That is right, if you have got the active redemption. But it seems to me if you let this currency go and pass from bank to bank that the very minute it gets into the hands of a bank they ought to be compelled to send it in for redemption.

Mr. TALBERT. Mr. Conant covered that this morning very aptly. It would defeat the entire purpose of credit currency and wholly destroy its usefulness if you compelled a bank to send it in for redemption immediately they got it. Redemption should be natural and voluntary; it should not be arbitrarily forced. To do so will be to strangle its vitality. If such provision were enforced we could not send the notes to the interior banks in the fall, nor could a bank, even in the height of the season when there was greatest need for notes, pay out any except its own notes.

With all respect, Mr. Chairman, to the admirable measure you proposed three years ago, that feature was a vital weakness. You failed also to provide adequate means of redemption. You compelled every bank to receive the notes of all other banks over its counters for any debt due it and forbid the banks to pay them out again. A bank in San Francisco would have been obliged to take my notes at par, and by reason of being forbidden to pay them out again would of necessity have been put to the cost of losing interest for many days and also paying the transportation charges on the notes back to me for redemption. This would, and of a right should, have prevented such a note circulating at par.

Mr. POWERS. I understand that if this credit currency is to effect anything and to be of any value it has to have substantially the same characteristics—that is, to pass from hand to hand and from bank to bank as national-bank bills do to-day.

Mr. TALBERT. Certainly.

Mr. POWERS. I do not see any question but what that must be so.

Mr. TALBERT. Yes.

Mr. POWERS. And that they must have the right to pay them out.

Mr. TALBERT. Yes; there is no doubt of this.

Mr. POWERS. Otherwise they would be of no particular benefit.

Mr. TALBERT. No particular benefit. Now, you take the banks down in your own section or in Texas, Mr. Gillespie, where they need money badly in the fall. There is no more legitimate purpose in the world than moving the crops; credit notes would be of no use in crop moving if banks could not pay them out freely.

Mr. GILLESPIE. Yes, sir.

Mr. TALBERT. Suppose a bank in Fort Worth was dealing with me. The bank has maintained a large balance with me all summer; they write me in the fall to send them currency; I send them a lot of my own credit notes. Would you forbid that bank to pay them out? What is the use of it? The bank would be obliged to send them back to me, because wholly useless for their purposes.

Mr. GILLESPIE. But that bank can issue its own credit notes.

Mr. TALBERT. Yes; but if each bank in the West and South could use only its own credit notes and not use the credit notes based on the capitalization of the large banks in the North and East and in the large cities everywhere, this 25 per cent possible note issue which we propose would not be a "drop in the bucket" in those sections where currency is most needed.

Mr. GILLESPIE. What is their capital as opposed to these big banks? Take the Bank of Texas; what is their capital stock?

Mr. TALBERT. I do not know, but I do not think that of the national banks is over \$40,000,000.

Mr. WEXLER. Not over that.

Mr. GILLESPIE. Twenty-five per cent of that is \$10,000,000.

Mr. TALBERT. Yes. I may say here, to show you how much currency they need, that our bank has sent to one bank in Texas more than \$1,700,000 in three months. Texas banks probably require every fall in the aggregate \$40,000,000 to \$50,000,000 in currency, while under this plan the total note-issuing power of banks in the State would not be over \$10,000,000 or \$12,000,000.

Mr. POWERS. You think that the amount of this credit currency, under any bill proposed so far, the little bank in the country could issue would go but a little way toward satisfying the demands?

Mr. TALBERT. I think so. In fact, I am sure of it.

Mr. POWERS. I think so, too. That being the case, the credit notes of a variety of banks going out into Texas and into the northern part of Maine among my farmers and lumbermen is scattered all around among them, and it would come in a little slowly for redemption as long as they had as much confidence in it as in any other money.

Mr. TALBERT. A little slowly, but it would come.

Mr. POWERS. Do you not think that it might operate very differently in this country with our many kinds of money from what it would if we had only substantially one kind of money, as they have in many countries, if they have credit currency, I mean this expansion and contraction?

Mr. TALBERT. I should answer that both affirmatively and negatively. Yes to this extent: That there is no other monetary system in the world which is quite so bad a piece of patchwork as ours—a financial crazy quilt—and we are only patching on a little mor

trying to improve it by giving it a little of a quality it needs, but has not, elasticity. Even what we propose can not be considered anything approaching adequate reform.

Mr. POWERS. I agree with you.

Mr. TALBERT. As to the negative: I should have to reply on the whole in the negative. Mark you, we are only talking about a very small credit issue—25 per cent. If there were no other kinds of currency except credit notes, and we could issue up to 100 per cent of the capital stock of \$800,000,000, we could then get flexibility. Secretary Shaw put it very aptly in a private conversation the other day when he said: "You gentlemen are trying to get as much elasticity out of the back end of your suspenders, from the fork down, as if the entire length were elastic." We realize the truth of this, but we can not yet get the whole suspender made out of the goods we choose, and are therefore willing to take the little piece and put into it as much elasticity as possible. We want to make it as flexible as active redemption, a strong reserve, and the waiving of transportation costs (which is a strong inducement) can make it.

Mr. WEEKS. What would be your objection to the banks issuing these notes and sending them in after ninety days for redemption?

Mr. TALBERT. Whenever you set an arbitrary time limit you destroy elasticity.

Mr. WEEKS. They can be put right out again by the issuing bank.

Mr. TALBERT. Then what is the purpose of having an arbitrary time limit? A note due in ninety days is not worth its face to-day and will not circulate at par. Logically, a note might as well be made redeemable in a year or five years—or never—as in ninety days or at any other fixed time in the future.

Mr. WEEKS. The great objection which is going to come up against this is that it is an increase in the permanent currency of this country, and that is the objection that has got to be combated. Now, I want to be perfectly clear in my own mind that it is not an increase in the permanent currency of the country; that practically, in normal times, this currency is going to be retired.

Mr. TALBERT. Do you mean by that question that the notes were to be not redeemable until ninety days after date, but that redemption at the end of that time by a deposit of lawful money with the Government should be compulsory?

Mr. WEEKS. If it came into the bank, it should be redeemed. Of course it could not be if it remained in the hands of an individual.

Mr. TALBERT. Now you are assuming that a time note, redeemable ninety days from date, would circulate at par, which is an absolute impossibility.

Mr. McCREARY. Who would determine the time?

Mr. WEEKS. The date of issue is on the note.

Mr. TALBERT. If you bring me your ninety-day note and say, "What is it worth?" I make a computation of the interest and find its present worth to be so much, but always less than its face. You would place the credit note at a discount by fixing ninety days or any other time limit. You can not circulate at par a note with a time limit on it, because it is not worth its face.

Mr. WEEKS. No; it is either one thing or the other. It would not circulate at par.

The CHAIRMAN. Have you finished, Governor Powers?

Mr. POWERS. I do not know that I have anything further to ask.

Mr. PRINCE. What do you think of the proposition of the Secretary of the Treasury, on page 54 of his annual report, dated June 30, 1906, in which he says:

"Suppose the national banks were required, either by statute or by direction of the Secretary of the Treasury, to increase their reserve and to carry the same in their own vaults in an amount equal to 1 per cent of their capital stock every fifteen days from the 1st day of April to the 1st of September."

Mr. TALBERT. I can only say, with all respect to the Secretary, gentlemen, that the suggestion is amazing.

Mr. PRINCE. Amazing in what way?

Mr. TALBERT. That he should seek to remedy our evils in so manifestly impossible a way. It would result in enormous contraction of loans and play havoc, if indeed it did not produce panic.

Mr. WEEKS. It would increase our troubles, would it not?

Mr. TALBERT. Certainly; aggravate them acutely and to the danger point.

Mr. POWERS (to Mr. Weeks). You asked that of Mr. Forgan.

Mr. PRINCE. I would like to ask you what you think of this proposition as set forth by the Secretary of the Treasury:

"Most of the reports of committees indorse all the essential features of the suggestions contained in recent reports of the Secretary of the Treasury where heavily taxed additional national-bank circulation is recommended. The most important feature of this plan is the certainty of retirement when the extraordinary demand ceases. Its retirement will be accomplished, not by collecting in the actual notes and redeeming them, but by allowing the bank issuing the same to make a corresponding deposit with the Treasury or at a subtreasury."

Mr. TALBERT. That proposition has been thrashed over so thoroughly that I do not think I can add anything to it. I thought Mr. Perrin made it exceedingly clear this morning that the higher the tax the less incentive there is for redemption, and consequently, the less elasticity there is in the currency. When the tax is so high that there is no profit in the note issue, no bank has any particular object in forcing redemption of the notes of other banks to make room for their own. The lower the tax, the greater the profit, and consequently, the more competition there will be among banks to bring about the redemption of notes of other banks, so as to make room for issuing their own.

The CHAIRMAN. If redemption is to be accomplished in that way by high tax, what would be the effect of that?

Mr. TALBERT. The effect would be the contraction of loans.

The CHAIRMAN. To what extent?

Mr. TALBERT. To just five times the amount of redemption that was accomplished in that way.

The CHAIRMAN. Would it not be desirable?

Mr. TALBERT. No, sir; it would not. It would also be forced and unnatural.

The CHAIRMAN. I should like to hear you on the point of what would be the effect on the country with such a system in operation?

Mr. TALBERT. It is difficult to say how harmful would be the effect on the business of the whole country. It would be depressing. At the present time, considering the high tension we are under, I should not like to contemplate, and still less to witness, the contraction of our credits or loans to a billion dollars—five times the possible

note issue. It would probably mean disaster. The country is not prepared for such a shrinkage. It should be remembered that when these credit notes go out it will be in response to a natural demand; their redemption should not be forced artificially either by high taxes or a time limit. Let reserves be held for redemption, let places for redemption be many and convenient, then let the notes come in when and as the holders desire them paid.

STATEMENT OF MR. JOHN L. HAMILTON, OF HOOPESTON, ILL.

Mr. HAMILTON. Mr. Chairman and gentlemen, I occupy on this commission the position of being the only private banker connected with it. I am the only banker who would not be directly benefited by such a bill, if there is a benefit in it to any great extent. Considering the interests of the country and the conditions that confront us leads us to the conclusion that there is necessity for financial legislation. In reaching that conclusion it is necessary to consider how a currency can be issued to make it safe, a currency that will pass current the world over, and which will be retired after it has met the demands of the people. If you enact a bill that will relieve the situation, you benefit me as a private banker to the same extent as you benefit the farmer, the merchant, or men engaged in any other business. I do not look upon this as a measure in the interests of the banker.

We have in this country practically two distinct classes of business men. The one is the producer, the other the carrier. The agriculturist and the manufacturer are practically the producers. The transportation lines and bankers are the carrying factors in this country. In considering a measure of this kind we must consider whether or not it is a temporary condition that confronts us or a condition that is likely to continue year in and year out for time to come. If you consider that question, then you must consider why the present condition of affairs is brought about, and in that connection I wish to illustrate to this committee the reason for emergency circulation, or credit currency, as I see it. The period of the year in which we have less demand for money than any other is usually in the month of April, which leads us to study why that month above all others gives us the easiest money market.

The conclusion is this: It is practically the beginning of the agricultural season. At the same time it is practically the beginning of the manufacturing season. The farmers and manufacturers have put forth their product during the previous year; they have received their returns, and have the easiest conditions financially at that time of any season of the year. The farmer then commences to prepare for his crops. He commences to use his credit. It matters not whether that credit be in the form of a deposit in a bank, or whether that credit be in the form of a note obligation to the bank, which he uses to pay his labor, and in the ordinary conduct of his farming business. The manufacturer, on the other hand, is putting forth his product. He is using his surplus, if it be in the form of a deposit or in the form of a credit, putting it into the manufactured product, in the payment of employees, and for the raw material that goes into that product. As the season advances, those two lines of business come nearer and nearer together. One is a competitor against the other in the money markets of this country, both demand-

ing assistance, and the competition between the two naturally advances the rate of interest.

About the month of September both classes have reached the point where they must be carried by the banks, and this necessity continues from that time on until the middle or perhaps the latter part of December. The reason for it is that it takes a certain period of time to turn the products of the farmer into cash, and it takes about the same length of time to turn the products of the manufacturer into cash. Consequently the burden is upon the banks or that class of carriers at that season of the year. If our farmer friends could see the advantage of selling their products on a basis of three or four or six months' time, as is the custom with the manufacturer, this condition would be relieved. But the farmer, when he sells his grain, demands the cash for his product, and he gets it. When he receives the cash he usually puts from 40 to 60 per cent of it in his pocket. That cash goes out through the community, and it will take from sixty days to three, four, and sometimes even as high as six months before this money passes through its natural channels back to the point where it started, and somebody must carry the burden until the time when it is used by the actual consumer.

I find this kind of a condition: The producing power has grown beyond the necessities of the country. We are shipping annually abroad, so that last year the balance of trade in our favor was \$517,000,000. Some one must carry that burden for the products sent abroad.

We have reached a condition in this country where we are practically the leading financial nation of the world in the matter of resources, as shown by the report of the Comptroller of the Currency. We have something over eleven billions of dollars, practically, in foreign countries, America slightly leading. If \$30,000,000 in this country will cause a ripple in our financial circles from Maine to California, what must that do when we ask from the other countries a return of \$30,000,000 for our products sent them? It is bound to affect the entire financial system of the world.

We stand in a peculiar position. While we are the leading nation in banking resources, yet our progress is retarded and we are deprived of financial supremacy by the fact that we are the only nation in which our banks have not the authority to use their credit.

Mr. WALDO. As currency?

Mr. HAMILTON. It is not fair to the country or to the people of the country that such a condition should prevail. It is true that I, as a country banker, am not individually affected, perhaps, directly by such a condition. I and other country bankers depend upon our city correspondents for relief. Consequently some country bankers are led to oppose any measure of this kind, saying: "Why, we can get all the relief we need from our city correspondents." They do not consider, however, that if the stringency continues to exist, where is the city correspondent going for his relief? The only relief they have to-day, as I see it, is that the city correspondent must go across the water to the commercial centers of foreign powers, whether that foreign power be friendly or not. This should not be, and it is your duty, I take it, to so remedy our laws that the American banker can take care of the great interests of this country without depending upon any foreign power for assistance.

The banker stands in a unique position. He, as you might say, is not a "top notcher." He is only the middleman. He is simply a dispenser of credits. On one side stands the depositor or capitalist, and on the other side stands the borrower. It is his duty to so adjust the credits between the parties that the commercial operations of this country shall go on without interruption. That is the banker's sphere in this business, and he can only operate to the extent that you, by legislation, place in his hands the implements for carrying on the occupation in which he is engaged. He is not the sufferer in the end by any disaster that may occur. He will adjust his affairs in some way, in some manner, so as to take care of his individual institution. The greatest trouble we have to-day in this country, I take it, is the inequality of our interest rates at different seasons of the year. I consider this as dangerous as inflation or any other proposition. If we had a more uniform interest rate, our country would be in a better condition. How are you going to get your uniformity of interest? I believe it can only be had by giving to the banks a bank-note issue that may be put out at the time when it is needed and retired when the necessities of the country get to a point where it is not necessary.

Speaking from the standpoint of a country banker, it is just as impossible for the country banker, with a capital of \$25,000, to keep out his circulation as it is for the city banker to keep out his circulation, unless the conditions of the country warrant him in putting it out. There is absolutely no difference between the two. There are certain seasons of the year when the country banker does need more actual bills than the city banker, but at other seasons he does not. Taking as an example our own institution, there is a national bank situated in our city, and I am the private banker. If, during the month of June or July, my competitor had the privilege of putting out credit currency, he could not keep it out to save his life.

The CHAIRMAN. You mean a credit currency?

Mr. HAMILTON. Yes; a credit currency; notwithstanding the fact that he has among his customers most of the manufacturers of his city, whose pay rolls, any one of them in any week, would use the entire amount—\$12,500—to which he would be entitled under the credit-note issue.

On the other hand, as a competitor having practically three-fourths of the business of that community, within less than a week's time after he puts out his notes they would be in my vault, and he would have to redeem them. I might, for his accommodation, and to give him, perhaps, a day or two of time, send those notes in to a commercial center; but just as sure as I did, those notes would have to be redeemed; just the same as if a man gives his check on an institution, that check must be met when presented. There may come a time at certain seasons of the year when it is to our mutual interest to keep bills in circulation. I can comprehend such a situation. If that time does occur, then I would be perfectly willing to assist my neighbor in keeping out his bills.

This leads to another thought. In this country we have diversified kinds of banking. There are the State institutions, the national institutions, and something over 4,000 private institutions. In considering the issuing of notes you must consider how it would operate; whether in any way possible a bank issuing a bill could be discredited. I was one of the members of the commission who was op-

posed to making this currency a first lien upon the assets of the institution, and for this reason: My competitor across the street could issue \$12,500 in notes. There is nothing to hinder me from accumulating those notes as a rival and carrying them in my vault as a reserve, and discrediting the institution issuing them, if I was inclined so to do, while he is bound in the protection of his own business to carry a legal reserve greater than the entire amount of his issue.

These notes would answer my purposes for a reserve just as well, so far as meeting the conditions that might occur from day to day is concerned, and they would answer a malicious purpose for me, because I could go to some of his customers and say, "What is the matter with that institution? I have a first lien on it for \$12,500."

Mr. WEEMS. But you could not carry those as a reserve if you were a national bank?

Mr. HAMILTON. No, sir; but there is nothing that can force us at the present time into the national banking system. I occupy simply the same position as a State institution or as an individual.

If, for instance, we are not classed as a bank, it would be just the same with me as an individual taking \$12,500 of that individual's securities and putting it down in my pocket for the purpose of discrediting him. I do not think it fair to the national bankers in this country that there should be any possible means put in the hands of competitors to discredit the national institutions. I recognize this fact, and I have been severely criticised for recognizing it, that no note issue should ever emanate from any institution that is not under direct Federal control. I do not approve of the theory of any State banking institution issuing a circulating note under any circumstances unless they come under Federal supervision. I believe that the safety of our currency system depends upon such provisions. I believe if in the early days of note issues all the banks issuing had been under Federal control you would not have had the trouble that occurred with wildcat and other currencies. The fact in this country is that while we have numerous State institutions that are just as good as any national institution there is in the land, yet the diversity of the laws in the different States makes it impossible to have a note issue that would be satisfactory, and for the interests of the country at large I am opposed to any such measure.

Considering this measure that we have presented to your committee as a means of relief, while we will recognize that it is not in every respect what we should want, that it is not our ideal, yet in passing a bill, as you gentlemen well know, you must consider the views of the people. The people of this country have for forty years past been educated to the idea of a bond-secured circulation, and while that bond-secured circulation to-day is one of the greatest stumbling blocks in financial circles, yet the conditions exist and you must continue them. Consequently, the only thing for us to do is to secure such legislation as will relieve the difficulties. It is not so much a matter of more circulation, more currency, as it is a question of more confidence that is confronting this country.

To-day, with our rural free-delivery system, with the newspapers going daily to every section of the country, every man is watching the conditions of the country and can not help but read the financial reports, and as a result money is being taken out of legitimate channels, and to-day the people of this country are carrying more money

in their pockets than they have for several years past. Why? Because they believe, they feel, that something is going to happen. They have been educated through the press to the idea that during the crop-moving periods we are going to have a financial stringency. The mere fact that it is constantly being held up to the public mind is the reason that the individual quietly carries a few dollars additional in his pocket over what he would otherwise naturally carry; and if you take but one dollar per capita you have affected the banking credits, or the money of this country. \$86,000,000. It is the anticipation that is causing the trouble.

If we can give to this country a measure that will satisfy the public mind that they will get their money when they need it it will obviate the necessity of such an issue. It has been claimed by some that the bill proposed is of great benefit to the national banking institutions. I have studied this measure carefully from the beginning, and if I were going to organize an institution to-day, and this bill were a law, with the present banking laws, existing as they do in Illinois, I would take a State charter in preference to a charter under the Federal Government for the benefits that would accrue to me as a note-issuing bank. It has been claimed by some that this measure was drawn in the interest of Wall street, or the interest of the commercial centers. If you will take the figures and consider the reserves you will find that the banks of the central reserve cities can issue this class of notes for from 3.33 to 3.44 per cent. Other than reserve cities can issue it for 3.11 per cent, and the country banker can issue it for 2.77 per cent. However, the country banker will labor under a disadvantage in keeping out this note circulation. He labors under a disadvantage as to the redemption of it. And considering those things, the bill as it stands is about of equal benefit to all the classes of institutions.

It has been pointed out to you by Mr. Forgan and others what profit would accrue under the different plans at the different rates of interest. Taking the figures with the percentage, a bank with a \$50,000 capital, or with a \$25,000 capital, issuing notes, even at 7 per cent, would only be able to realize \$218 upon their issue; a mere bagatelle for anyone to regard, considering the responsibility that they would have to assume under such an issue.

There is nothing further that occurs to me at the present time on this subject, and that is all I want to say, unless something should be brought up in the way of a question.

The CHAIRMAN. Does anyone desire to ask any questions?

Mr. LEWIS. Will you permit me to ask one question?

The CHAIRMAN. Proceed.

Mr. LEWIS. A good deal has been said to-day and on yesterday about the magnificent system of other countries in issuing money. Is it not true that England is suffering to-day from a money stringency, and the rates of money are almost as high as our own?

Mr. HAMILTON. The rate of interest has advanced, I think, to about 6 per cent. Consequently that means that the English banks are paying more than 4 per cent for balances at the present time.

Mr. LEWIS. Has not Germany been going through a financial distress for the last two or three years?

Mr. HAMILTON. Yes, sir.

Mr. MCCREARY. About three years ago that started?

The CHAIRMAN. What is the condition over there?

Mr. HAMILTON. High rates of interest are prevailing, I think, in Germany.

The CHAIRMAN. How high?

Mr. HAMILTON. About 6 per cent.

Mr. WEXLER. No; 5 per cent. The discount rate in Berlin has not been over 5 per cent.

Mr. McCREARY. Four years ago there was a good deal of money stringency there, but there is not any now.

Mr. LEWIS. They did have disturbances four years ago under the splendid conditions they have for issuing credit currency?

The CHAIRMAN. What kind of disturbance?

Mr. LEWIS. Commercial distress like we have in this country; and yet we have heard so much about their splendid system of asset currency. It shows that these countries have their troubles, too.

Mr. POWERS. England has not got this system of credit currency.

Mr. LEWIS. Did not England put up her rate of discount in order to prevent ourselves from coming in and taking away their gold, and France and others?

Mr. HAMILTON. Yes; but I think they have a balance due to this country that they want to hold.

The CHAIRMAN. Who has a balance due this country?

Mr. HAMILTON. England has.

The CHAIRMAN. How much do you think we are owing them now for borrowed money? On the loans that we got over here by this method that Mr. Shaw adopted, how much do you suppose now they have incurred over in New York, that they have got to meet?

Mr. HAMILTON. I do not know. It is between three and four hundred millions, I understand.

The CHAIRMAN. Mr. Wexler is a foreign-exchange man, and I think he is probably keeping pretty close tab on this, and I would like to ask him what his opinion is.

Mr. WEXLER. I would like to say that the Bank of England system, while infinitely better than ours, has still some serious defects which make it possible for them to have a bad condition at certain times, when they are being heavily drawn upon for gold. The Bank of England is allowed to issue its notes upon actual gold in its vaults, or upon indebtedness due it by the Government.

The CHAIRMAN. Excuse me, but what I want to know is what are we owing England, instead of England owing us, just now, on loans?

Mr. WEXLER. It is difficult to fix the amount, but I would say it is from three hundred to five hundred millions. Nobody knows. We do a very extensive foreign-exchange business, and handle about a million dollars a week in that line, and we avail ourselves of these foreign credits during periods when foreign exchange is high and when we believe it is likely to decline so that we can cover it at a lower rate. We used this season our credits to the extent of \$1,800,000—our one bank. In other words, we drew upon our correspondents in London at ninety days to the extent of \$1,800,000.

These bills they accepted, and we sold them in the New York market and got the money for them. We sold them at a time when the exchange was high, and our prediction that exchange would decline was verified, and these bills have since been covered by the purchase of our own grain and cotton and lumber bills, which were good in our market, and we have paid them back in our products, which is the

proper course of business. In other words, that portion of the indebtedness which this country owed to England by reason of our using their bills has been discharged from the bills arising from the balance of trade in our favor, and exchange having declined materially, this money has cost from $3\frac{1}{2}$ to $3\frac{3}{4}$ per cent. At the present time such a transaction would be absolutely impossible, for the reason that you would have to sell your pound sterling at a price which is the gold-shipping point from the other side. In other words, you would only get for the pound to-day about \$4.74, and the chances are when the obligations have been discharged and our merchandise has been shipped over there, exchange ought to go to \$4.80 or \$4.85, perhaps—it has been to \$4.89—which is the gold-shipping point, and the cost would be enormous in buying the bills back and paying \$4.89 for what you had sold at \$4.84.

The prevailing interest rate in England at the present time of 6 per cent makes it further impossible, because you would have to take this ninety-day bill and sell it at a relative difference between between sight and ninety days at the discount rate of 6 per cent, so that the money would cost you at least 6 per cent plus the commission which you have to pay the foreign banker for accepting any advance which might take place between now and the time you had to cover, so that it is a physical impossibility to make the transaction at the present time. But the amount of these obligations of a bank the size of ours, at that time amounting to \$1,800,000, shows what it must have amounted to at one time. It is almost inconceivable, because it may have been a billion dollars. Some of that has been paid off, but the weakness in exchange indicates in the last three or four days that there has been a stoppage of these payments simply because they have not had the money to pay it off.

Mr. McCREARY. There are two conditions, one is the balance of trade that you spoke of.

Mr. HAMILTON. Yes, sir.

Mr. McCREARY. That is your \$750,000,000 that you send over there and the other is the balance of debts which we have been drawing on them to make up the deficiency. The country banker comes to the city banker and the city banker goes to the money center. That has all been borrowed, and that is the balance of debts which sooner or later will have to be paid?

Mr. HAMILTON. Yes; that will sooner or later have to be paid.

Mr. McCREARY. Now, in turn England falls back on France with her great gold center, and the Bank of France, it is said, recently would discount the bills of the Bank of England provided they got Mr. Rothschild to indorse them, as he had to do in the Baring failure in 1873. This shows how one thing leads to another.

Big fleas have little fleas
Upon their backs to bite 'em,
And little fleas still smaller fleas,
And so ad infinitum.

[Laughter.]

STATEMENT OF MR. ARTHUR REYNOLDS, PRESIDENT OF THE DES MOINES NATIONAL BANK, DES MOINES, IOWA.

Mr. REYNOLDS. I feel that as the hour is late, and you have already been very patient in this hearing, and anything that I might say must, on account of the full presentation given heretofore, be a

repetition of something that has already been said, I should not and it is not my purpose to occupy any considerable amount of time. In fact, I can say in a very few minutes all that I have to say.

As you are perhaps aware, I come from Des Moines, Iowa, and represent in a measure the great grain-growing district, a section of the country abundant in crops and general resources, and from which in the fall comes a demand for currency to handle the same beyond the reasonable supply of money centers. We are not unlike the agricultural districts everywhere, as it is in such sections that we have the greatest use for currency. Our farmers demand it and the banks are compelled to supply it, even to the end of reducing our gold bank reserves, which are indeed the safety-valves underlying our banking system. Also this withdrawal of funds creates a stringency in money centers which should be avoided.

I want here to speak of a matter which has been brought up in this hearing which I think should be explained. As you are aware, the State of Nebraska borders upon Iowa on the west, and hence the needs of the people living in the two States are the same. At the Nebraska State Bankers' Association meeting held in Omaha the other day a resolution was passed which was somewhat derogatory to this plan, particularly to the first part of it, providing for the issue of 25 per cent of the capital at 2½ per cent interest. I want to say in this connection that I am credibly informed that there were only about 85 bankers present at that meeting, although there are between six and seven hundred bankers in the State of Nebraska. The outcome of that meeting was largely due to the personality connected with the speakers, one of whom was a gentleman from Omaha who enjoys a very wide personal acquaintance, and hence has a large personal influence in the State association. The prospectus of the plan of the currency commission had not been placed in the hands of individual bankers, and they had not, we think, had time or opportunity to investigate the subject sufficiently to form an intelligent opinion upon it. They were simply taken off their feet by this personal talk that was given them by a man in whom they had confidence.

Mr. GILLESPIE. Was that Mr. Yates?

Mr. REYNOLDS. Yes. I do not want to be understood as saying that the bankers of the State of Nebraska might not, as a whole, have given voice to the same sentiment, but I think it is doubtful, because I am acquainted with a good many of the bankers in that State that I know entertain entirely different ideas upon this subject. Hence, I do not think this meeting voiced the sentiment of the bankers of that State.

If a man presents himself at my counter for a loan, the first thing that I want to be certain of is that he is perfectly good financially, and that the money will be returned to me at the maturity of the note. Now, in issuing any kind of bank currency, the first element must be the element of absolute security to the involuntary recipient of the note over my counter and over the counters of the other banks of the country. If a man is making a deposit, he can choose his bank; but if a man is receiving currency, it has never been the practice, and perhaps never will be, to ask for any special kind of money or currency.

Hence, I say he is the involuntary recipient of the note, and it should be kept absolutely safe in his hands at all times. A high tax will retard, if not discredit the issue. It puts the public on inquiry

and enables nonissuing banks to use it unfavorably against issuing banks, which should not be hampered by such an unfavorable condition, for upon them rests the burden of taking care of the present vexatious question of supplying sufficient currency to meet our expanding commerce. Let it be borne in mind that a high tax does not provide any element of security to the note; it simply affords more profit to the Government and places a greater burden upon the public, who must in the end pay it. Also a high tax places it beyond the ability of the banker to provide any particular means of security to the note, there being no element of profit in the note, and the high tax being all the banker can afford to pay for the issue.

A low tax would make the issue profitable to the banker, and would enable him to provide measures for the security of the note, and out of such tax could be created a guaranty fund sufficient in itself, as has so fully been explained, to make the note absolutely safe. A low tax enables the bank to carry this gold reserve which is provided as against the note, and we believe that in view of the fact that a long experience in the handling of national banks has shown that the reserve which is required to be carried by banks against their deposits has proven sufficient to meet all the demands made upon such banks, and if a like reserve were provided to be carried against a like kind of a demand liability, their credit notes would prove it to be ample.

What we need, then, is a properly secured low-taxed currency which will adjust itself to the needs of commerce and not unnecessarily burden the people. The tax which has been suggested by the currency commission is not an attribute of the issue, and is only placed upon it in order to create the guaranty fund and to provide for the expense of handling the issue.

I do not think the question of taxation has anything at all to do with the redemption of credit notes. The question of daily redemptions is the all-important one. A low tax is, in my opinion, necessary in order to afford a profit to the issuing bank and to encourage the issue by making it possible for the bank to redeem the notes of other banks in order to make a profit on their own.

In regard to redemption, I want to say that I happen to belong to a small family of bankers. My brother is connected, as president, with one of the banks in Chicago. I am located in Des Moines, and I have another brother located in a small country town, from which we all originally came. This currency does not provide the same amount of profit to all of us. My brother located in the central reserve city gets the least profit out of it. I, being located in the medium-class reserve city, get the next higher profit out of it, and my brother located in the country gets the largest amount of profit out of it. Hence this is purely or very largely a measure for the relief of the country, for the merchant, the farmer, and the manufacturer, and should not be considered a bank measure.

I have here the question of the tax preventing redundancy. That has already been so ably explained by Mr. Perrin that I will not undertake to cover it now. I do want to explain, however, in a very simple manner the method of redemption. I might say that I have had about ten years' experience in a small country bank and am thoroughly familiar with country-bank business in the State of Iowa, both from the experience gained from being behind the counter of such a bank myself and from twelve years' handling of country accounts

in a medium reserve city. The practical workings of this currency measure in Iowa would simply be as follows:

This currency would be put out in the crop-moving period, and as long as it would pass from the farmer to the doctor and from the doctor to the merchant—in other words, passing from hand to hand—the currency could be kept in circulation. But when the quiet season comes on, which in our section is between the 1st of March and the 1st of April, the farmer has paid all of his bills and has perhaps a moderate sum of money left, which he brings to the bank and deposits. At the same time the other funds which he has distributed in his community among the various people with whom he is connected in a business way is also coming into the country bank, and money is accumulating, as it does and always will in country banks at this season of the year. Then, as Mr. Perrin explained, the country banker is in the habit of either putting that money in his pocket and bringing it to the bank in a reserve city or sending it there by express. Now, mind you, the season has arrived when he can no longer issue and distribute his own currency and secure this profit. There is no longer a need for it. The people are not using it, and it is leaving the pockets of the people and finds its way into the banks.

There is another feature in connection with redemption—which causes redemption—and that is that the country banker can not afford to carry this currency in his vaults and pay $2\frac{1}{2}$ per cent interest for its use and provide a reserve fund which when money is loaning at 6 per cent costs him $1\frac{1}{2}$ per cent, and hence he sends it to the reserve city, in order to get interest on his balance. Then, as the funds from the country bank come into Des Moines, which is geographically in the center of the State of Iowa and would naturally be a clearing place for the currency of this character, the credit notes are selected out by the Des Moines bank and are immediately sent forward for redemption. If, perchance, any of our credit notes are returned to my own bank, we are no longer shipping currency, although in seasons we ship in very large amounts considering the size of the business we conduct. Through the active months we ship from \$50,000 to \$75,000 per day, but this being in the spring, we are no longer shipping currency to our country correspondents, because they are shipping currency to us. Hence neither of us have any place to use this currency; we can not do anything with it; we have it on our hands and can not afford to put it in our vaults at the loss heretofore suggested. Hence we retire it.

There is another reason why banks in cities would be retiring these credit notes at this season, and that is because their deposits are increasing and they need reserve money to put behind them, which could be secured through the retirement of such notes.

These would be the methods and the reasons for the retirement of credit notes in our community and perhaps all over the country. It has been proposed that numerous redemption places be designated and that they be not farther apart than twenty-four hours by railroad. There might be individual cases, but it seems to me a very remote possibility of a bank not being within very close proximity of a redemption city and of these notes not working back daily into that redemption city.

When war was declared with Spain, as you will remember, the 4 per cent bonds, which had previously sold as high as 1.22, as I remember, immediately went as low as 1.12. Banks, you will readily

see, would not want to invest any large amount of their assets in securities which might be interfered with again under similar circumstances and in a similar manner.

There has been, it seems to me, in the minds of one or two, as was brought out by the questioning yesterday or the day before, an inquiry as to why the removal of the \$3,000,000 restriction on redemption would not give to our present bond-secured currency the elasticity desired. We appreciate that our present notes are inelastic. They can not contract and expand to the needs of trade. As to the question of making our bond-secured circulation more elastic, permit me to say that in the purchase of bonds upon which to issue notes a bank must invest the amount of the premium in excess of what they will receive in notes. Hence, instead of being in a better position to serve the requirements of commerce, they are less able to do so.

If numerous redeeming places were provided, our bond-secured currency would undoubtedly be retired in quiet seasons. Banks hold at this time something over \$500,000,000 in bonds.

You will readily recognize that as this currency is largely regulated by the purchase and sale of bonds, and the price of the same is constantly fluctuating, if this currency were forced out of circulation on account of methods of redemption and elasticity that might be provided, and we should happen to have retired \$150,000,000, we will say (which is about the amount that is provided in the suggestions of the commission), then the remaining \$350,000,000 of the currency in circulation would be carried at an actual loss to the banks, because there is only about 1 per cent profit on the entire issue of about \$500,000,000. So banks would be forced to sell their bonds securing the currency retired, and the buying and selling of bonds would be done by most banks at the same time, depressing and inflating the price, which would cause so great an inconvenience and loss that banks would not avail themselves of the issue.

MR. WEEMS. Do you think that limitation ought to be changed—as to the amount of retirement, I mean?

MR. REYNOLDS. Yes, sir; I do. I think possibly it should be entirely eliminated. I am not, however, certain but that there might not be some other amount fixed which would afford sufficient relief. But certainly for any practical purpose the \$3,000,000 redemption per month is entirely too low. Some believe that unlimited redemptions might seriously affect the price of bonds carried by banks. Hence, if this currency were issued at a loss by the retirement in this way, and the banks sold their bonds at a loss, they might not very soon again take on bonds for the purpose of issuing currency upon which they might again suffer a similar loss.

It is well known to you all that the banks have carried the Government debt for over forty years, and they have carried it with bonds ranging at very much higher prices than they have reasonably been worth, considering the earning capacity of the bonds. And now, it seems to me, it is necessary to protect the Government in the sale of the bonds, and it is also necessary to protect the banks in the price of this, one of their most valuable assets, their Government bonds. Hence the commission has wisely based this currency upon a double ratio of 40 per cent of bond-secured circulation and not to exceed 25 per cent of the capital.

We have at the present time a form of credit currency through the purchase of commercial paper. We in the reserve cities are all the time taking on paper for the purpose of securing what might be termed liquid assets. We want something that we can convert into money at seasons when we know that we are going to need it. And I might say in this connection that it is now very prevalent, and is growing more so every day, for the country banker in Iowa, irrespective of the demands he may have at home, to purchase this character of paper in order to have a fluctuating quality in his business—in order to be able to take care of the same without being compelled to go to his correspondent for loans at any time and under any conditions.

The purchase of this paper by these medium reserve cities and these country banks is increasing. The paper is all made to mature in the fall, when New York is having its greatest difficulty in financing the situation. Now, we are involuntarily forcing upon them this condition. It is not a condition that they have created. The issuing of this paper has not been anything that they have had anything to do with, but it has been paper that we have bought for our own protection, and which we are forcing New York to take care of at a time when they do not actually have the funds to do it with. You would not want New York to carry such surplus in the inactive seasons of the year as would enable them to be prepared to take care of the unusual demands they have in the fall; because I anticipate that it will take from 50 to 75 per cent of their resources to finance the demand that they would have in the fall.

One of two things is necessary: They are either forced to encroach upon their legal reserves, or else they must have some currency relief of the character which we propose. I want to say that in my own city, Des Moines, we have 18 banks. There are only four national banks. The lines of competition are very closely drawn between the national and the State banks. I do not think they are more closely drawn in any city of the country than in Des Moines. And while some of the State banks have heretofore held the position that we must have a high-taxed currency in order to force retirement when not needed, at the present time, I am happy to say, that I have not talked with a single one (and I have talked with practically all of them) who, after a full explanation, did not feel that a low tax would be retired just as quickly. And I want to say further that I have talked with bankers in Chicago, even, on my trip here—one quite prominent banker—who did not seem to have grasped the idea of the redemption under the plan proposed by the currency commission.

I have not talked with any one in our community and been given a reasonable hearing but what I have been able to convince them that this currency is as safe and satisfactory as it could possibly be, on account of the retirement feature provided, making it profitable to banks to retire other banks' bills in order to make a profit on their own. There can be no inflation where there exists actual necessity for the currency at the time it is issued. If the crops of the country and the general products of the country are demanding the money with which they are to be moved, if the banks are calling upon their correspondents for money to move the crops, and such currency is issued, it certainly can not be called inflation.

I want to call your attention, however, to the present method adopted by the Treasury Department of relieving the money stringency. The Secretary has just placed, as I understand it, \$30,000,000 reserve money with the banks.

Mr. WEEKS. Ten million dollars; and he is anticipating \$20,000,000 of bonds.

Mr. GILLESPIE. Twenty million dollars in anticipation of interest, and \$12,000,000 for deposit?

Mr. MCCREARY. Yes.

Mr. REYNOLDS. That would provide reserve for \$150,000,000 of credit. In other words, it would provide as much credit as is proposed by this measure, and hence it will be seen and readily recognized by you all that this measure can not be considered as inflation.

I think that while I have a few other things that I might say they have been so thoroughly covered that I do not think it is necessary for me to go into them at this time. My thought in rising at this time was more particularly to give you a suggestion that I am satisfied that the bankers in our community, and the business people generally, as soon as it can be gotten to them—and it is being sent out and delivered to them in various ways very rapidly—will be satisfied with the recommendations of the currency commission; and I am satisfied that most of the Congressmen, if not all, from the State of Iowa, will support it. Indeed, I have talked with some of them.

I thank you, gentlemen, for the courtesy which you have extended to me in permitting me to appear before you.

Mr. WEEMS. Mr. Reynolds, I suppose you intend that these new bank notes should have the same legal qualities that belonged to the old ones?

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. For instance, every national bank is required to receive at par the notes of every other national bank.

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. You would have that apply to these notes?

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. So that if out in St. Clairsville, Ohio, I got hold of one of these notes issued by Governor Powers's bank up in Maine I could go to New Orleans and I could deposit it there, or they would have to receive it on deposit?

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. That would of itself give these notes a national character, would it not?

Mr. REYNOLDS. Yes; I think it would.

Mr. WEEMS. It would also provide, of course, that the Government would have to receive them for everything but customs dues?

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. Now, let you and I or Mr. Perrin and I travel, just to cure one little mistake that we have got on record. The country bank gets hold of \$20,000 of its own notes in the spring, it does not need them, and it sends them to New York City to be deposited. The New York bank at once enters up a credit of \$10,000. The New York bank would send them in for redemption and get lawful money instead of them. That means, of course, that they go back to the

man who sent them, who issued them, and he is required to send on \$10,000 in lawful money to make up his redemption reserve.

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. That is the round, is it not?

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. The loan or deposit—I use the word “loan” because practically it is a loan, of course—is made, but at the expense of the lawful money reserve.

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. That is the true situation?

Mr. REYNOLDS. Yes; that is the true situation.

Mr. WEEMS. We have got ourselves literally on record as saying that the loan is not made. It is made, but it can not be made out of these notes, they are too shifting, and it is made out of the lawful money reserves?

Mr. REYNOLDS. Yes, sir.

Mr. WEEMS. Then it is simply not possible to create with these notes a situation of affairs in the spring or in any period of redundancy, where western banks can send more money to New York City?

Mr. REYNOLDS. No, sir; I think not.

Mr. WEEMS. Then is it not true that the only source of permanent absorption that would create a permanent increase in the money from the source of these notes would be such notes as would be out and would stay out in the hands of the people in response to the demand created by the hoarding demand and by the cash-use demand?

Mr. REYNOLDS. Yes; that is correct.

Mr. WEEMS. Now, suppose that demand did absorb them permanently, would not that merely prove that we had afforded at least a supply to a healthy and normal demand?

Mr. REYNOLDS. Yes; I think it certainly would.

Mr. WEEMS. That is what I think about it.

Mr. McCREARY. Speaking on the subject of the retirement of bonds, if too many are retired, if they came in in large bunches, would it not depress the price of the bonds?

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. Would not the other fellow who had not any, or had not very many, turn in and buy at a low rate bonds again for circulation?

Mr. REYNOLDS. He might do that.

Mr. McCREARY. If it is profitable he would?

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. If they got below a certain limit?

That would keep it under equitable conditions between the man who wanted to take and retire and the man who wanted to buy? One would offset the other?

Mr. REYNOLDS. It would have a tendency to do that.

Mr. McCREARY. That would settle the question of the retirement of bonds, if the conditions were such as to retire too many of them?

Mr. REYNOLDS. Yes; I think so.

The CHAIRMAN. If this entire limit were taken off, and in the springtime, when contraction is naturally expected, the banks of the country would begin to sell an amount of bonds, selling which would

decrease the price from 104, we will say, a point and a half for the purpose of this conversation—that would take all the profit of one year on the reserve, would it not?

Mr. REYNOLDS. Yes, sir.

The CHAIRMAN. As soon as they got an appreciable amount, the banks would stop selling, because the profit would increase, would it not?

Mr. REYNOLDS. Yes, sir.

The CHAIRMAN. If in the fall they wanted to buy bonds to extend or expand the credits, according to the present system, bonds would begin to rise, would they not?

Mr. REYNOLDS. Yes, sir.

The CHAIRMAN. So that if they fell three-quarters of a point on the market in the spring and rose three-quarters of a point in the fall on the buying it would cut out all the profits?

Mr. REYNOLDS. Yes, sir.

The CHAIRMAN. Do you think the banks would sell in the spring, except to buy in the fall?

Mr. REYNOLDS. No, sir.

The CHAIRMAN. Would not the market price made by the selling in the spring and the market price in the fall by buying keep the price practically where it is, or within a quarter of 104?

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. In regard to the question of the movement of money into the city banks and into the reserve agency—the movement of money into the interior at certain seasons of the year creates a vacuum in the money centers?

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. That is the reason for the credit currency?

Mr. REYNOLDS. Yes, sir.

Mr. GILLESPIE. I want to ask Mr. Reynolds his opinion about loaning all the money in the Treasury over and above a working balance. Should that be put into the banks at an arbitrary rate of interest or at the customary rate?

Mr. REYNOLDS. It would be difficult to define between “customary” and “arbitrary,” because the customary would almost be an arbitrary rate. For instance, you take it in reserve cities to-day, the customary rate of 2 per cent, of course, would not be in that sense arbitrary, but it would be perhaps impossible to get more than that for your money.

Mr. McCREARY. There was a question here that came up when one of the other gentlemen was speaking. This was in regard to the question of Government deposits, which seems to be disturbing a great many people, especially those who have not any and those who want more. From 1863 to 1882 the Government put its surplus money out in the banks.

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. Without bonds, without any other guaranty than the indorsement of the directors, which made the best kind of a guaranty because they were going to see that it was paid back, because they were personally responsible. That worked all right.

Mr. REYNOLDS. Yes; it did.

Mr. McCREARY. Then, now it is put out on bonds—assured bonds.

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. First the money was loaned without any bonds,

and afterwards on assured interest-bearing bonds. Now the only reason that that ceased—I mean the general proposition that it was stopped, this putting out money on the indorsement of the directors—was the resumption of specie payments?

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. Which created a different condition of things?

Mr. REYNOLDS. Yes, sir.

Mr. McCREARY. That is it. It is a fact, and I wanted to get that in as a fact.

Mr. REYNOLDS. Yes. The Government never lost a cent in depositing money during that period without Government security.

Mr. GILLESPIE. Is it not true that it was not to anything like the extent to which we are doing it now?

Mr. McCREARY. The Government from 1863 to 1882 did not have the bonds and the banks did not have the resources.

Mr. WEXLER. The directors were not as rich.

Mr. GILLESPIE. I want to ask about this proposition about depositing the money—whether it is best to say that we will deposit at 2 per cent or let the banks bid on the rate of interest.

Mr. REYNOLDS. That would be a very dangerous method, in my opinion, to bid on the rate. Several different States have tried that. As you will remember, the State of Nebraska tried it and suffered very serious loss through that procedure. Certainly I should not recommend it.

Mr. GILLESPIE. And of course it would not be, except among those banks that the Secretary of the Treasury might pronounce good. He would say “Here is a list of the banks that I am willing to put this money among in the different portions of the country. Send me sealed bids for the deposits.”

Mr. REYNOLDS. It would not be my idea that such a method would be advisable.

Mr. GILLESPIE. Would you put money into certain sections of the country at 2 per cent when in other sections of the country it would be probably worth 4 per cent and be just as safe, as far as the depositor is concerned?

Mr. REYNOLDS. There ought to be some method provided for equitable distribution through the country. I would not say at this moment what it should be, but I think it should be at a fixed rate with the banks throughout the country rather than by a bid on the rate.

Mr. WEEKS. Is not that an arbitrary interference with the matter for the Government to say “I am going to fix the rate of interest?” Would not that have that effect with the immense amount that we now deposit?

Mr. REYNOLDS. It does not appear to me that would have any effect on the condition.

Mr. WEEKS. If the Comptroller of the Currency, as the result of inspection, says that all national banks are good?

Mr. REYNOLDS. Yes, sir.

Mr. WEEKS. If the bids were to be asked for, would not the poorest and most recklessly managed banks bid the highest rate?

Mr. REYNOLDS. That has been the result in State banks with regard to State funds.

Mr. GILLESPIE. But suppose that the Comptroller of the Cur-

rency or the Secretary of the Treasury or somebody that knows would select banks from over the country that they know to be good, and not those reckless, wildcat speculators and get-rich-quick concerns; suppose we should protect the proceeding in that manner. Is it not better to demand this action, so that the Secretary of the Treasury can respond to the demands of the country for the money?

Mr. REYNOLDS. It seems to me I would like to preclude the possibility of the Secretary of the Treasury having money at his beck and call in that manner. I do not think his powers should be increased.

Mr. GILLESPIE. You would turn them loose to do as they pleased? You would say: "Here, you see here are these millions and billions piled up here, and they shall be loaned at 2 per cent. Put it where you want it?"

Mr. REYNOLDS. That would in a large measure place the entire money situation at the command of any man who might occupy the office of the Secretary of the Treasury.

Mr. GILLESPIE. Not so much as your proposition here, it seems to me, because you would be controlled in one instance by a legitimate demand for money and coming from perfectly solvent institutions, and there would be no arbitrary interference with the rate of interest by the Government. But under the proposed plan you would just turn the Secretary of the Treasury loose with the surplus and say, "All we want, now, is 2 per cent. We don't care what the needs of the different portions of the country may be; we don't want you to respond to the commercial interests in the different sections of the country, but you can put it wherever you please just so as you get 2 per cent."

Mr. REYNOLDS. As I say, there ought to be some method of equitable distribution and at a fixed rate.

Mr. GILLESPIE. How would you suggest there should be an equitable distribution?

Mr. REYNOLDS. At the present time I have not any well-defined idea on that matter.

Mr. WEEKS. As a matter of fact, when the Secretary deposits money with national banks throughout the country now he distributes it.

Mr. McMORRAN. Is there any good reason why the Government should have any greater interest for money deposited in the banks of the country than the business interests of the country?

Mr. REYNOLDS. That was the reason that I had in my own mind for saying that I thought it ought to be at an arbitrary rate which was consistent with business conditions. I do not think there is any reason why the Government should get any greater rate of interest.

Mr. McMORRAN. The common rate is 2 per cent?

Mr. REYNOLDS. Yes, sir.

Mr. McMORRAN. If the Government deposits its money in the banks to its credit, why should it have any more than the common rate of interest paid to other people?

Mr. REYNOLDS. I do not think it should have.

Mr. McMORRAN. If the money was advertised by the Secretary of the Treasury to go to the highest bidder, would not that be detrimental to the best interests of the country?

Mr. REYNOLDS. I think it would; yes, sir.

Mr. TALBERT. May I make just a remark, Mr. Chairman? Just re-

cently we had that in Chicago. They changed the law, and instead of depositing the public funds in a bank free of interest a new law has gone into effect, and every bank in our clearing house was invited to bid on that money. I agree with Mr. Reynolds, that it was a very pernicious thing. Our bank, being a purely commercial bank, bid 2 per cent. Other banks, among them that of Mr. Forgan, bid 2 per cent. His bank bid 2 per cent, but he had a trust company which bid 3 per cent.

Now, if you are going to put it out under competitive bids you will find that the receipts will vary all over the country, and the badly managed bank, or the one that needs money the worst, will be the one that bids the highest.

Mr. GILLESPIE. I would not include the badly managed bank at all.

Mr. TALBERT. If you discriminate against any bank it would discredit that bank.

Mr. GILLESPIE. A bank of that kind ought to be discredited.

Mr. MCCREARY. That system which is spoken of is in vogue in Philadelphia now, after a defalcation amounting to a million and a half of dollars. The favored banks got the deposits. But they have instituted a resolution, passed through councils, that all banks of good standing that passed the finance committee of councils were entitled to receive not more than 25 per cent of the capital and surplus, for which they paid 2 per cent.

That stopped the man on the inside from sweating the banks and making them pay 2 per cent to himself. The bank could not afford to pay 2 per cent to the wrong man and then 2 per cent to the city. That settled that. That was automatic. That has saved large sums to the city of Philadelphia, \$100,000 to \$150,000 a year from that 2 per cent. There is no discrimination in it. It simply moves on the line of the bank getting 25 per cent, no more than 25 per cent, of its capital and surplus.

ADDITIONAL STATEMENT OF MR. PERRIN.

Mr. PERRIN. I just wanted to add a suggestion with regard to a principle that, it seems to me, is more or less important in the matter of the deposit of the bank funds. The interest paid upon a deposit must necessarily be only a portion of the profit received. There are two ways by which you can make a profit out of the deposit—I mean to say, increase the ordinary profit out of a deposit. One is by seeking loans at higher rates, and the other is by carrying a smaller reserve against it. Is it not a sound principle for the Government to fix only a moderate rate of interest which will justify adequate reserves against the deposits and the seeking only of the best loans for the investment of such deposits? Does it not make for the stronger situation?

ADDITIONAL STATEMENT OF MR. WEXLER.

Mr. WEXLER. The only thing I want to say is this: I think we have covered everything pertaining to the proposed measure, and I think it would be taking up your time uselessly to say anything further; but I want to say this, that I do not think this measure should be regarded in any sense of the word as having any partisan side what-

soever. In other words, it should not be regarded as Democratic, Republican, Populistic, or Socialistic. It should be regarded as a measure for the general good of all the people of the United States, as a measure tending to give us stable and satisfactory rates of interest for money, and as placing at the disposal of every legitimate enterprise a sufficient amount of money to carry that enterprise on under any and all conditions at reasonable rates of interest.

If there are in this Committee on Banking and Currency, as I suppose there are, some Members who are Democrats, as I am, and some Members who are Republicans, as I am not, I want to say that I hope there will be no lobbying, no caucusing on the part of any particular party for or against this measure. And I want to say particularly to our Democratic Members, and especially those from the South, and coming from that section I feel that I can take that liberty with them without hurting their feelings at all, that southern Congressmen and Senators have been very frequently criticised not only in the North, but in the South as well, as being often opposed to anything that the majority is in favor of. Now, I do not know that this exists to the extent to which it is stated to exist.

I do not think it does, because I know a great many of the Members personally. But I want to say that it will do the South a lot of good, and improve the standing of our southern Members, if they will go thoroughly into these questions, and even though they are advocated by the President and the whole Republican party, if you are convinced that it is for the general good then vote for it, even if it is an Administration measure. We sent once to Congress from my native State of Mississippi a Congressman, one of whose claims to the votes of his people was his ability to tell a good joke and make a bon mot. I refer to John Allen. John Allen said it was a good deal better to vote wrong than to vote right and have to explain it. [Laughter.] I am afraid there are a good many Members in Congress who think the same way.

But a question that is as important as this, that has within it the power to prevent emergencies, which will prevent the drawing of money away from the banks and hiding of it in mattresses and pockets, a measure that will result eventually in giving us the necessary grease for our wheels of commerce, is of such very great importance that even though you will have to go back home and explain, and though some of your constituents will criticise you for the first month or two, until they have understood, I hope you will make up your minds to go back home and stand up for it openly, for a measure that you are sure is for the general good; and you will find that as time rolls by, and probably within a year, the very men who criticised you will come to you and thank you for having voted on this proposition and having been in favor of it. That condition exists to-day in large portions of the West where they voted for free silver, and to-day they are thankful to any of their Members who refused to adhere to any such heresy as that, and I am confident the same thing will be true if you vote for this measure.

Mr. McCORD. Another Democrat wants to join Mr. Wexler in his remarks. I think it is time to quit our foolishness. For God's sake, throw down party lines and give us something that is good for the whole country. [Applause.]

Mr. GILLESPIE. Mr. Chairman.

The CHAIRMAN. Do you want to approve the remarks of the last speaker?

Mr. GILLESPIE. With this qualification: If you will join the South in getting justice along other lines, they will join you on all other lines. And I will tell you that we are ready now to take up a sound, safe financial policy. Every part of this country is ready now, and members of all parties, I believe.

I was in hopes that a measure would come from these gentlemen that would be of some far-reaching, permanent, lasting benefit to the country; but I must say that I am disappointed. I think it is a compromise, a mere makeshift, in considering the financial condition that all of these gentlemen will acknowledge to you in private conversation does exist.

The CHAIRMAN. We are to draw the bill, and I am very glad to find that there is such a response to this suggestion that is made.

Mr. POWERS. Why does not the gentleman from Texas draw a bill?

Mr. GILLESPIE. I can not do it. I was in hopes that these gentlemen would do it.

ADDITIONAL STATEMENT OF MR. McCORD.

Mr. McCORD. Excuse me for rising again, but I want to speak to this point. Congressmen have said: "How do you expect us to give you financial-currency legislation when you bankers differ so in what you want?" We told that on the floor of our convention in St. Louis, and we told that body, representing 8,300 banks: "Gentlemen, if you want anything you must give to somebody plenary powers to say what you want."

Those bankers, from every State in this Union, Republicans, Democrats, Populists, Socialists, and every other class that could be thought of, said: "We put it in your hands as a commission to say what we want. Do it. No referendum. Say what you want, and give it to the people as you think best."

The CHAIRMAN. Did they say it?

Mr. McCORD. Of course they did, when they gave us plenary powers.

(Thereupon, at 5.30 o'clock p. m., the committee adjourned until to-morrow, Thursday, December 13, 1906, at 10 o'clock a. m.)

COMMITTEE ON BANKING AND CURRENCY, HOUSE OF REPRESENTATIVES, *Washington, D. C., December 13, 1906.*

The committee met at 10 o'clock a. m., Hon. Charles N. Fowler in the chair.

The CHAIRMAN. We will hear Mr. Wardrop, of Pittsburg?

STATEMENT OF ROBERT WARDROP, PRESIDENT PEOPLES' NATIONAL BANK, OF PITTSBURG, PA.

Mr. WARDROP. Gentlemen, I wanted to say that while in Pittsburg we do not have crops to move as they do in the South and West, yet in the fall we feel the same stringency and the same demands for money that are felt in other parts of the country. For instance, our great coal companies are shipping bituminous coal to the lake ports on Lake Erie, and it is then reshipped by steamer to the Northwest,

and during the months of August, September, October, and November this immense quantity of coal is piled on the docks and is redistributed from there through the winter—shipments this season from Pittsburg district to lake ports 9,200,000 tons.

Of course there is an enormous amount of money to be paid in wages to the miners and to the transportation companies. This money is not returned to the coal companies until the winter months, after the coal is sold.

In like manner the ore vessels that carry up this coal bring back large quantities of ore. This year there will be about 35,000,000 tons of ore brought from the ore country down to the distributing ports on the Lakes. In seven months of the year, when the Lakes are open, the ore is brought down to run the furnaces for twelve months. Consequently you can see that during five months there is an enormous accumulation of ore which must be paid for, and during those months there is a tremendous demand for money. The large iron companies and steel companies, of course, which have their balances with the banks, will check on them and reduce their balances, which reduces the deposits. Then many of them are compelled to borrow large amounts of money, so there is a strain both ways, a reduction in deposits and an increase in loans.

You will note that this comes in the fall, just about the time there is this great demand for crop moving, which necessitates banks reducing their balances with their reserve agents and also forces them to call loans. In some instances, to prepare for this emergency, we make loans in the month of June—four-month loans. Of course, those loans mature, but they must be paid, and if the borrower has no money the money has to be borrowed some place else.

We have a very large amount of money to furnish to these different companies at this time of the year. Some of it, of course, is paid in the regular way, through the clearing house by check; but if we had facilities for issuing a credit bank note we could use a great deal of this money in exchanging credits in making up our pay rolls, so that when the coal companies come to us for their pay roll we could exchange the credit instead of using our reserve money, which we frequently have to do under the present arrangement.

Mr. WEEKS. How much do you think the pay rolls are in Pittsburg a week?

Mr. WARDROP. The pay rolls at the present time run not less than \$20,000,000 per month—almost \$1,000,000 per day. It has been recently estimated carefully.

Mr. McCREARY. That was the official statement the other day—about \$1,000,000 a day for the workdays.

Mr. WARDROP. Yes; about \$1,000,000 a day for the work days.

Mr. WEEKS. What months are the heaviest, according to the statistics?

Mr. WARDROP. There is very little difference. Probably in the months of July and August they would be a little lighter, but, as I said the other day, in Pittsburg it is almost a continuous performance on account of the great prosperity there.

Mr. McCREARY. In July and August they are less because of the extraordinarily hot weather?

Mr. WARDROP. In July and August, on account of the excessive heat, those being the months for vacations and the months for re-

pairs, it would be somewhat less. It would probably be 20 per cent less than in the other ten months of the year.

Mr. MCCREARY. Heat is an important factor, too.

Mr. WARDROP. Yes.

Now I would like to say a word as to the safety of this credit currency.

Perhaps you will recollect that last year a man by the name of Allis, of Erie, Pa., offered a bill in the House securing deposits in all national banks. That bill had some merit. Of course I know a great many of the bankers in the large banks would not listen to such a thing. They were not willing to put up money to guarantee deposits in the small national banks. They claimed it might cause a great many of the smaller banks to operate carelessly, and they thought it not wise. The position they took was that the man who makes a deposit in a bank becomes a voluntary creditor of that bank, and he has a right to discriminate.

But in this matter of a credit currency, which we suggest, we say that the man who holds that note becomes an involuntary creditor of the bank in a great many cases, and therefore it should be made absolutely safe. In other words, it should be a secured deposit, an insured deposit. It is an absolutely secure deposit, and therefore, with this reserve fund which is provided, the statistics show it is safe beyond any question whatever.

As to the question of active redemption, that question seems to be more in doubt with the committee than perhaps any other that has been brought up. We are told that the present national bank notes stay out 730 days. In other words, there are about \$250,000,000 of national-bank notes redeemed every year. Last year, of that \$250,000,000, \$139,000,000 were sent in by the New York banks alone. If we add to that the amount sent in by Boston, Philadelphia, Chicago, and we might add Pittsburg—we send in a great deal—I presume there was over \$200,000,000 presented for redemption by those banks, which would leave, at the most, only \$50,000,000 presented for redemption by the entire United States outside of the points mentioned.

It seems to me that with 30 or 40 redemption agencies, accessible to all banks, so that they could be reached within twenty-four hours, the redemption would be quick and that the notes could not possibly stay out any great length of time. Then there would be another inducement. There would be the inducement of keeping out our own notes, because there was a small profit in keeping them out, and in view of the fact that the notes of other banks would procure for us a reserve, we naturally would be collecting the notes of the other banks in order to make our reserves good.

There is still another feature. That would be the free transportation. For instance, in Pittsburg we are always short. I say always. I mean practically eleven months out of the year, and maybe twelve months, we are short of Chicago and New York exchange. The only way we can procure that New York exchange is either to buy it from some bank that happens to have it, and as a rule none of the banks in Pittsburg sell it, or we must ship to New York and Chicago currency or gold, which is expensive.

What would we do with a system of note currency of this kind? We would assort every note that comes into our bank and perhaps would assort these credit notes into three classes. Those redeemable in the West we could ship to Chicago and they would make exchange, at no cost to us. Those that are redeemable in New York or in the East we would ship to New York—make New York exchange—and those that are nearer home, in our own city, we would collect and make reserve from them.

Now, as to the question of circulation per capita and the prospects of this currency returning to the banks in times of depression.

There is in the country to-day approximately three billion dollars of money—two billion seven hundred million dollars after we deduct the amount in the Treasury, about three hundred million dollars. I am giving round numbers. Now, it is supposed there is about \$15 per capita in the pockets of the people, at least that amount can not be accounted for.

We all know that in times like these, in prosperous times, we all have more money in our pockets than we do in times of depression, and that is particularly so with the mechanic and the laboring man. In our district around Pittsburg, in the coke regions, there is an enormous amount of money carried by the great foreign element, the foreigners who work in the mines and around the mills. A great many of them have no bank account. They carry their money in their clothes. As an instance, recently two Italians were injured in a mill, and when taken to the hospital one of them had \$400 in bills in his clothes and the other had \$500. They were saving their money to go home. They come out to this country and after they get five or six hundred dollars they think they are very wealthy and they go home and spend it in sunny Italy. In fact some of them come here in the spring and when the cold weather comes, rather than buy winter clothes, they go home where it is warmer.

What would be the result in depression? This money that is in the hands of these people would be used for family expenses and for other things and would come out of their pockets and would naturally work into the banks, and there being no use for the money it would be retired. In fact, I think if we were to have a reasonable amount of depression—I do not mean like the depression after 1893, but some curtailment in business—there might even be a reduction in the present bond-secured circulation. I therefore think redemption is certain, and there would be no trouble from that standpoint.

Now, as to the question of reserve on this credit money. I think as it is a deposit a reserve should be kept just the same as on any other deposit. I think that has been so fully explained that there is very little that may be said in regard to it.

There was quite a discussion the other day as to the question of interest rates, as to whether this currency would in any way affect the rate of interest paid on deposits. I can not see that it will. As Mr. Forgan stated about the Scotch banks to-day, they are paying 4 per cent on deposits. But why? Because they can loan their money at 6 per cent. I think the same thing would be true with us. We men who are in the banking business are not in the banking business particularly for our health. We are in the business to make money. If we can loan money at 6 per cent we are going to pay more for it than if we loan it at 4 or 4½ per cent. If the time comes

when money must be loaned at an average rate of 4 and $4\frac{1}{2}$ per cent instead of, say, $5\frac{1}{2}$ per cent, as it is at present, we must reduce the rate we are paying for money. Consequently I think the rate on deposits is going to be governed by the rate on loans.

Mr. GILLESPIE. What is the rate you pay on deposits in Pittsburg?

Mr. WARDROP. The average rate is about 2 to $2\frac{1}{2}$ per cent, I should say—that is, I mean the rate paid by commercial banks. Savings banks pay 4 per cent in Pittsburg. I am ashamed to admit it, sir, but it is the fact.

Mr. GILLESPIE. Two and a half per cent is the rate paid by commercial banks?

Mr. WARDROP. Two to $2\frac{1}{2}$ per cent, I think, would be the average rate. We pay on commercial accounts 2 per cent where there is a large balance, but we require a customer to carry several thousand dollars free for banking facilities. On out-of-town bank accounts we pay a higher rate. We pay 3 per cent as against New York and Chicago's 2 per cent; but, taking the average rates for the year, we get better rates than in New York and Chicago, on account of our home demand.

Now, a word as to the high-taxed credit currency. I am of the opinion that such a currency would not be used by the banks generally. As for our own bank, I doubt if we would ever take out a high-taxed, so called, emergency currency.

One further thought is that this measure that we propose—and this has been repeated several times—is not a banker's measure. It is legislation for the banks and for the people. Of course the banks are in business to make money, and we would expect to make a small profit from this circulation; but the business man who borrows this money expects to make a profit, and therefore if the currency is issued it will be for the welfare of the people generally.

I think, gentlemen, those are about the only matters I want to present at this time. I shall be glad to answer any questions.

Mr. McCREARY. What do you call a high tax?

Mr. WARDROP. Five per cent. Five per cent, with a 25 per cent reserve, would cost banks in central reserve cities about $6\frac{2}{3}$, or nearly 7 per cent.

Mr. McCREARY. Who constitute the banks' stockholders?

Mr. WARDROP. Who constitute them?

Mr. McCREARY. Yes; all over the country.

Mr. WARDROP. The people.

Mr. McCREARY. So it is the people who ultimately get the benefit of the prosperity or the injury to the bank in its adverse condition?

Mr. WARDROP. Yes, sir.

Mr. PRINCE. Please explain what you mean by redemption of national-bank notes. Is it a temporary or a permanent redemption of the \$250,000,000 or thereabouts that you say is redeemed each year?

Mr. WARDROP. That is merely temporary redemption under our present bond-secured circulation, but if it were a credit currency and the business did not require it it would be permanent.

Mr. PRINCE. That answers it. Now, another question. Do banks now use, by permission of the Comptroller of the Currency, national-bank notes as reserve funds?

Mr. WARDROP. No, sir.

Mr. PRINCE. The reason I ask that question is this: It is stated in the Chicago Tribune of yesterday that such is permitted, and there is this agitation going on all through the Northwest. If the Comptroller permits national-bank notes unlawfully to be now used as reserve, the next step will be to allow this elastic currency to be used as a reserve. I want to ask you this question: In stress of financial times may not the banks in like manner be permitted to use elastic currency as a reserve money? Of course your answer to that would be "no," as it is "no" to the other.

Mr. WARDROP. It would be illegal, sir, to do it.

Mr. PRINCE. I am aware that the law forbids it. Later on I may ask that question of Mr. Talbert, with the permission of the chairman, whether this is now permitted to be done in violation of law by the Comptroller of the Currency.

Mr. WARDROP. Let me say a word on that subject. In the first place, take our own case. We carry a certain amount of reserve in a separate vault, to which the teller has no access. In that vault we would think of putting nothing but legal-tender notes. The national-bank notes never enter that vault. As the teller receives a great deal of money during the day and does not have time to assort it when he makes up his cash at night, he has a certain amount of money on hand that is mixed, and in figuring that he figures that there is 20 per cent of it national-bank notes, and the rest of it he figures as reserve. He only does that until the next day, when he perhaps gets time to assort it, and I understand that some of the bank examiners, in examining a bank and finding this mixed money, have some rule of estimating it, because they would not have time in their examination to assort it.

Mr. WEEKS. That is an individual equation of the bank examiner, is it not?

Mr. WARDROP. Yes; but the Comptroller does not allow us to count national-bank notes as reserve.

Mr. PRINCE. But the Comptroller receives the report of the examiner, and the examiner is under oath, and he can not falsify, whatever the individual bank shows, can he? So that it must of necessity come back to the Comptroller, because the acts of the agent are the acts of the principal, and he is the principal and they are agents.

Mr. WARDROP. Yes.

Mr. PRINCE. That is, if such a condition obtained. I say it is charged. I do not say it is so.

Mr. WARDROP. I think a credit currency would help the matter very much, because there would be a more general assortment of the notes in order to get your credit notes out and get them redeemed. I think there would not be so much difficulty in making up reports and there would be fewer bank notes counted as reserve.

Mr. PRINCE. Those are all the questions I desire to ask.

Mr. GILLESPIE. Right on that same point. I read from Mr. Forgan's address that has been distributed here. See whether you indorse what he says:

"Under our erroneous system, however, such surplus, instead of being redeemed and put out of existence, performs the functions of real money and becomes the fictitious basis of an expansion of credit. This illegitimate expansion of credit on a false basis is frequently the cause of the reduction in the rate for call money to a point below that

which the banks are themselves paying for deposits. This affords an opportunity and becomes directly responsible for speculation in Wall street on a large scale. But as soon as commerce again has need for the circulation, which it always does in the fall, this surplus currency, which has been forming a fictitious money reserve in the banks, is withdrawn, and curtailment of the Wall street credits which have been based upon it becomes necessary. This the banks accomplish by raising the call-loan rate, and when the pressure continues the rate rises to a point as absurdly and dangerously high as it was previously absurdly and dangerously low."

Mr. WARDROP. He is referring there to the bond-secured notes.

Mr. GILLESPIE. Yes.

Mr. WARDROP. They come into the banks. They can not be redeemed under the present law. With a limit of \$3,000,000 a month they can not be redeemed.

Mr. GILLESPIE. They can not be retired?

Mr. WARDROP. I mean retired.

The CHAIRMAN. You want to make a distinction, I suppose, between redemption and retirement?

Mr. WARDROP. Yes. They can not be retired.

Mr. GILLESPIE. I understand. They can be redeemed to any amount.

Mr. WARDROP. They can be redeemed to any amount, but they can not be retired. They accumulate and the banks do not want them in their vaults, earning them nothing, and naturally if they could loan them even at a low rate, no difference how low the rate, it is that much better than keeping them in the vaults idle. When he speaks there of that word "reserve"—

Mr. GILLESPIE. That is the word I had in mind.

Mr. WARDROP. He does not say legal reserve.

Mr. GILLESPIE. That is what he means?

Mr. WARDROP. No; I do not think so. It is reserve funds the banks have, but he does not say legal reserve.

Mr. GILLESPIE. Then, as I understand, you do not subscribe to this statement at all?

Mr. WARDROP. I do subscribe to it, but not in the sense of legal reserve. It is reserve funds the bank has not loaned, but not legal reserve, and I do not think he means legal reserve.

The CHAIRMAN. Is that in the form of a question, Mr. Gillespie? My attention was diverted for a moment.

Mr. GILLESPIE. Yes; I read this statement from Mr. Forgan's address that was handed around to the committee the other day, and asked this gentleman if he subscribed to that statement.

The CHAIRMAN. What is the statement? Excuse me for asking again.

Mr. GILLESPIE. I will read it again:

"Under our erroneous system, however, such surplus, instead of being redeemed and put out of existence, performs the functions of real money and becomes the fictitious basis of an expansion of credit. This illegitimate expansion of credit on a false bases is frequently the cause of the reduction in the rate for call money to a point below that which the banks are themselves paying for deposits. This affords an opportunity and becomes directly responsible for speculation in Wall street on a large scale. But as soon as commerce again has need for

the circulation, which it always does in the fall, this surplus currency, which has been forming a fictitious money reserve in the banks, is withdrawn, and curtailment of the Wall street credits which have been based upon it becomes necessary. This the banks accomplish by raising the call-loan rate, and when the pressure continues the rate rises to a point as absurdly and dangerously high as it was previously absurdly dangerously low."

Mr. WARDROP. Would you allow Mr. Talbert to give his opinion of this matter, Mr. Chairman? He is a Chicago banker.

The CHAIRMAN. Yes; when he appears before the committee. You may reserve your question, Mr. Gillespie, and ask him.

Mr. WEEMS. Is not the reserve referred to by Mr. Forgan in the extract read the reserve accumulated during the redundancy period that it is dealing with?

Mr. WARDROP. Yes.

Mr. WEEMS. A reserve greater than the lawful reserve?

Mr. WARDROP. Yes, sir. I think he also refers, though, to the excess reserve also occasioned by the oversupply of national-bank notes.

Mr. GILLESPIE. He said that in his statement here. It was winked at somewhere.

Mr. WEEMS. He does not use the word "fictitious" as describing a part of the reserve required by law which is surreptitiously allowed to be made up of bank notes. He does not use that adjective in that sense in the extract that has been read.

Mr. WARDROP. I think not, sir. In figuring our reserves we first figure the legal reserve according to Government requirements. Then we also figure our reserve to ascertain the actual cash reserve, taking into account our national bank notes and bank balances, which are not kept with legal reserve agents, for the purpose of knowing our actual available reserve for loaning purposes.

Mr. WEEMS. What I wanted to ask is this: Is it not ascertainable from experience what average percentage of your mixed currency at the close of the day's business in Pittsburg is national bank notes? Is not that pretty closely ascertainable from experience?

Mr. WARDROP. Yes, sir; but that would vary quite considerably.

Mr. WEEMS. Has there been an honest attempt made to ascertain the average?

Mr. WARDROP. I do not know, sir, whether there has or not.

Mr. WEEMS. Do you know one way or the other whether the practice that obtains on the part of any of our national-bank examiners of figuring that at a certain percentage is based on an attempt to reflect the result of actual experience?

Mr. WARDROP. I do, sir. I know that a bank examiner went into a bank, took the mixed money, counted every single package, figured the amount of legal reserve in each package, and made an exact statement of the entire amount on hand.

Mr. WEEMS. I refer to where that is not done, where the examiners merely figure that a certain percentage of the mixed currency is bank notes, without counting. Have you any knowledge of such estimates being a mere winking at the allowing of the carrying of national bank notes as a part of the reserve? So far as you know, is it an honest attempt to reflect what experience has shown to be the actual percentage? Have you any knowledge as to what the practice is in that respect on the part of bank examiners?

Mr. WARDROP. No, sir; I have not.

Mr. GILLESPIE. You have stated that on one occasion you know he went through one bank and counted all the money and made the percentages.

Mr. WARDROP. Yes; I know that.

The CHAIRMAN. I did not understand your question, Mr. Gillespie.

Mr. GILLESPIE. I called attention to the fact that Mr. Wardrop stated that on one occasion he knew a bank examiner to go through a bank and make an accurate estimate of the percentages of the different kinds of currency.

The CHAIRMAN. An actual count, you mean, so that it was an exact statement of the situation of that bank?

Mr. GILLESPIE. Yes. He had to count it first to see how much of each kind there was. Then he gave out the percentages. Mr. Wardrop, did you ever know a national-bank examiner to do that with that bank more than one day, or with any other banks except on that one occasion?

Mr. WARDROP. That is the only occasion I know of.

Mr. POWERS. Do you not understand that these bank examiners, through long experience in counting the money in different places, have come to a conclusion of about what the general average is—that is, reserve money?

Mr. WARDROP. Well, I should think that is true, sir. They must have a pretty good idea in the different banks they go to, and with their experience they must have a pretty accurate idea of the average amount of reserve.

Mr. WEEKS. I suggest that as Mr. Talbert has been a bank examiner he can quite likely answer these questions.

The CHAIRMAN. He is coming on later. Have you any further questions, Mr. Powers?

Mr. POWERS. I want to know how many of these redemption cities you propose to have?

Mr. WARDROP. I do not know whether that was thoroughly discussed or not, but it seems to me there should be in the neighborhood of 25 or more.

Mr. POWERS. How many reserve cities have we now?

Mr. WARDROP. We have 42, I think.

Mr. POWERS. Why would it not be well to have outside cities as well as the reserve cities?

Mr. WARDROP. It might be a good thing to do that.

The CHAIRMAN. Might it not be well to have cities that are not now reserve cities made redemption cities?

Mr. WARDROP. I do not think it necessary. I think the reserve cities are well enough placed through the country. There are 42 of them, and I think there would be enough of them.

Mr. POWERS. It would necessarily work inconvenience, would it not, to a bank in the country to have to do business in two distinct cities—to have to redeem in a city different from where it kept its reserve?

Mr. WARDROP. I do not know that it would.

Mr. POWERS. I supposed it would be inconvenient for a bank that had a reserve in a city to have to also arrange to redeem its currency in some other city.

Mr. WARDROP. Well, it could arrange that, I should think.

Mr. POWERS. A large bank might, but I should doubt if a small bank could very well.

Mr. McCREARY. Is there not a limitation as to inhabitants in regard to the question of reserve cities?

Mr. WARDROP. Yes; I believe there is.

Mr. McCREARY. I understand they are required to have 20,000 people.

Mr. HAYES. But not all cities of 25,000 are reserve cities.

Mr. McCREARY. No; they are selected by the Comptroller, and the matter is arranged for under that limitation.

Mr. GILLESPIE. You speak of one fact or element in this currency that will tend toward its redemption—that is, that it can be sent without cost to the center for redemption. Could we not give that same element of elasticity to present national-bank-note currency by making the same provision with respect to it?

Mr. WARDROP. It is redeemable now without expense. We can ship national-bank notes to Washington without charge.

Mr. GILLESPIE. Then there would be no difference, so far as that being an inducement to redemption is concerned?

Mr. WARDROP. Excepting this: You ship your money to Washington and get your returns from Washington; but suppose a bank in the West wanted its reserve in Chicago. Under this plan of credit-note redemption you could ship the notes to Chicago, and they would be redeemed there, and the money would go just where it was wanted.

Mr. GILLESPIE. To meet that objection we could change the law with reference to where the present bank-note currency is to be redeemed. We could establish redemption agencies conveniently over the country.

Mr. WARDROP. Yes; you could redeem it, but you could not retire it.

The CHAIRMAN. Is there any other question to be asked of Mr. Wardrop?

Mr. WEEKS. In that connection I will ask one question. Are you in favor of the present limitation of the retirement of national-bank currency, Mr. Wardrop?

Mr. WARDROP. Three million dollars per month?

Mr. WEEKS. Yes.

Mr. WARDROP. No, sir; I am not.

Mr. WEEKS. That in itself prevents any elasticity or any great elasticity in national currency, does it not?

Mr. WARDROP. Yes, sir.

Mr. WEEKS. Would you remove all limitation?

Mr. WARDROP. On that question I am not quite certain, sir; but it should be increased, if not entirely eliminated. I think we should be allowed to redeem more than \$3,000,000 per month.

Mr. WEEKS. If it were entirely removed, would it not tend to create violent fluctuations in Government bonds?

Mr. WARDROP. I think possibly it might do so. I think, therefore, it would be better to largely increase the amount that could be retired monthly.

ADDITIONAL STATEMENT OF MR. TALBERT.

Mr. TALBERT. Mr. Chairman, I desire to thank the committee, each of them individually, for the patient, painstaking, and careful hearing they have given us. I am sure I voice the sentiments of every member of our committee in thanking you. You have listened at-

tentively to what we have had to say, as is shown by the questions that have been asked, and we appreciate it very much. You have given us a full and free opportunity to be heard; if we have not made ourselves clear and convincing, it is our own fault.

Now, as to the special remarks I wish to make. I fear new subjects will be opened for discussion, and probably it would be better first to settle the questions that have been asked. I think they are important and to the point.

The CHAIRMAN. Use your own pleasure about that.

Mr. TALBERT. I should like first to answer whatever questions are to be asked on the subjects brought up by Mr. Wardrop's remarks.

Mr. PRINCE. The question I asked was this: Do banks now use, by permission of the Comptroller of the Currency, national-bank notes as reserve money?

Mr. TALBERT. No; not with his knowledge or consent. To say that in actual practice and daily experience a small country bank does not now and again have a few national-bank notes in its reserve chest would be to misstate the facts. I was a bank examiner for five years. I traveled over a large part of the western country, beginning in Louisiana and Texas and extending through Arizona, New Mexico, Colorado, Utah, Wyoming, and the intermountain country; also in Minnesota, and finally in the city of Chicago. My experience relates not only to country banks, but to many city banks. I found in all reserve and central reserve cities that bankers were very careful lest they included national-bank notes in their reserves.

Mr. PRINCE. You mean how they excluded them?

Mr. TALBERT. Yes. How they excluded them. The majority did exactly as Mr. Wardrop did. The notes were carefully assorted, but perhaps not on the day of receipt. Of course, you understand, when there is an active business day, and the deposits are received in very large amounts, the tellers are in a rush, and perhaps do not assort the currency as carefully as they do the next day. In the case of our own bank I know we have a number of tellers, probably half a dozen, who do nothing but assort money. Not a dollar in the shape of a national-bank note ever is counted as reserve. We would not dare to count it as reserve money, not only because it is against the law, but because we do not think it is good banking.

In my experience national-bank notes circulate much more freely in the country and are much more commonly held by banks, not in their reserves, but in their cash, than by the city banks. The reason is obvious. We in the city are obliged to force these notes out all the time. In fact, we prefer to pay out nothing but national-bank notes, as far as we can, to keep reserve money intact. I think that answers your question. The Comptroller does not sanction counting them as reserve money.

Mr. PRINCE. The Comptroller does not sanction it, but as a matter of fact does such a condition exist in any of the banks of the country?

Mr. TALBERT. To a very limited extent, I should say, yes. The amount is very small, and results only from what I say, because it is not always convenient to assort it at the close of business. They do it the next day.

Mr. WEEKS. Right in this connection, is that done with the intention of evading the law?

Mr. TALBERT. No.

Mr. WEEKS. It is simply for the purpose——

Mr. TALBERT. As a matter of practical work. That is all. It is not to escape the law. In counting up our reserve we do just exactly as Mr. Wardrop does, and I believe it is the common practice of all banks. We figure our lawful reserve precisely according to the statutory requirements. We have a book in which the per cent of reserve is put down in figures every day. We know how much gold we have, how much legal-tender notes, and how much lawful money of all kinds. The total is put down and expressed in so much percentage of liabilities.

Mr. GILLESPIE. Do you ascertain that by actual count?

Mr. TALBERT. Yes; by actual count. Our "legal reserve" is locked up in a chest to which only the cashier and the higher officers have access. It is usually in gold coin and legal tenders. National-bank notes, checks for the clearings, and other items of that sort are not available for reserve purposes. We add the amount, however, to our "legal reserve" and put the sum total down in another line to show the total "cash resources" of the bank. That percentage may be up to 40, and frequently is even 45 per cent, but it has no relation whatever to the computation of the necessary "legal reserve," which is 25 per cent.

Mr. GILLESPIE. I want to ask a question in regard to this matter of elasticity generally. It seems to be the idea prevailing here that there can be no elasticity without the element of permanent retirement, at least for a time; that it belongs to the currency and is an incident to the currency. It occurs to me that we can have an elasticity and have a stable volume without that. If commerce does not need it, it will find temporary resting places until commerce will need it, and then it comes back into the channels of commerce, going out and coming in just as I breathe. I expel atmosphere from my lungs. It is not desired. It is put in a reservoir around me. I can immediately call it again for the next breath. Now, although you have a stable volume of currency, is not the normal action of commerce to draw out and to draw in this currency? It goes in a bank or a man puts it in his pocket, or it piles up in different sections of the country. It is not needed then, but pretty soon it is needed and you find it going out. Is not that elasticity as much as if you had the power to absolutely destroy it when you do not need it, and then the power to reissue immediately when you do need it?

Mr. TALBERT. No; I think you confuse redemption, as it is now effected through the Treasury Department, with permanent retirement. The thing to be kept firmly in your mind in thinking on that subject is——

Mr. GILLESPIE. I will put the question exactly, in view of the statement I have made, so that you may explain the whole matter. Take our present national-bank currency. It is issued and comes here to Washington for redemption. Now, if that is not convenient, or if the places are not sufficiently distributed over the country, that can easily be remedied, it seems to me. It comes here and is redeemed at the Treasury and sent back to the bank at Fort Worth, we will say, to the amount of \$100,000. The bank has no particular use for it. There is no demand there, and you can not see any demand where that currency can be used over the country. It just remains in the vaults of the bank until there is use for that particular currency,

and the bank puts it out when they see there is use for it anywhere over the country. There is a demand for it, and here is a supply that immediately responds to that demand.

Mr. TALBERT. Mr. Chairman, I think I understand the gentleman's question fully. I believe I can answer it in a few words. He must bear in mind, first, the rigidity that is fixed in the national bank bond secured circulation by law. We can not retire that currency any faster than \$3,000,000 a month, if we wanted to. He wants us to lock it up in the vault. I will show you why we can not afford to do that.

Mr. GILLESPIE. Do not say that I want it done.

Mr. TALBERT. I mean you suggest that such is the way it might be done, and thereby secure elasticity.

Mr. GILLESPIE. Yes.

Mr. TALBERT. Before a national bank can secure bond-secured notes it must buy bonds from the Government or a dealer with lawful money. Under the present system of "redemption" (which I say is not redemption at all) a note is forced immediately back into circulation, because the bank is obliged on notice from the Government to make good its redemption fund, and thus pays twice for such notes. That is the reason we can not afford to hold them. We paid for them in the first instance when we bought the bonds. We paid for them a second time when making good the 5 per cent fund—

The CHAIRMAN. In other words, it represents actual capital.

Mr. TALBERT. It represents actual capital.

Mr. GILLESPIE. To make myself plain, suppose every dollar of it was a gold dollar. When it is not needed in commerce it goes into banks, or anywhere, and when commerce needs it it goes out again, though your volume may be fixed, so much per capita, over the whole country. It responds to trade, seeking temporary resting places, and then it gets back, whether it is in a bank or elsewhere. Is not that elasticity?

Mr. TALBERT. No; moving about the country or accumulating idly in vaults does not constitute elasticity. If a note is locked up in a vault and has been paid for out of the legal reserves of the bank holding it, that note must be quickly put into action. The bank is compelled to put it out in its own defense, even to force it out.

Mr. POWERS. Mr. Talbert, if I understand the distinction, it is this: When a bank receives from Washington its own notes it can reserve them, and it need not put them out.

Mr. TALBERT. Yes; but "reserve," as you use it in this sense, does not mean to count the notes as "reserve money," but merely to hold them on hand unissued.

Mr. POWERS. And that will create a retirement and a species of elasticity?

Mr. TALBERT. Yes.

Mr. POWERS. But those notes have cost their face in money.

Mr. TALBERT. Yes.

Mr. POWERS. If it does not put them out, the bank is losing interest on that money.

Mr. TALBERT. Yes.

Mr. POWERS. When it receives from one of these redemption agencies its credit notes it can keep them in its vaults and interest will

cease, exactly as it ceased on the sheets of notes that came from Washington.

Mr. TALBERT. Exactly.

Mr. POWERS. And it costs it nothing to keep them in its vaults. Is not that the definition?

Mr. TALBERT. Yes. That is very clearly put.

Mr. POWERS. In one case there will be made an opportunity to put it out. In the other case the bank need not put it out unless there is some need for it.

Mr. TALBERT. Yes.

Mr. WEEKS. All of these notes could be retired in thirty days or sixty days, could they not?

Mr. TALBERT. You mean the credit notes?

Mr. WEEKS. The credit notes.

Mr. TALBERT. Yes. I believe that the redemption (with the facilities we propose and which we would recommend to the Comptroller when we get that far, if we ever do) will be just as active as it is in Canada now, and that the average life of a note outstanding would not exceed thirty or forty-five days, and that the amount remaining in circulation in the summer time would be practically nil.

Mr. WEEKS. Take the bond-secured national-bank notes. There are \$575,000,000 of them in round numbers, are there not?

Mr. TALBERT. Not quite that. There may possibly be that much, but the figures in my mind are about \$525,000,000 or \$526,000,000.

Mr. WEEKS. All that can be retired in one month are \$3,000,000.

Mr. TALBERT. Yes.

Mr. WEEKS. Thirty-six million dollars in a year?

Mr. TALBERT. Thirty-six million dollars in a year.

Mr. WEEKS. About 6 per cent of the total amount?

Mr. TALBERT. Yes. It would take sixteen years to retire the notes—continuous performance.

Mr. WEEKS. That could hardly be called an elastic currency, could it?

Mr. TALBERT. Scarcely. In fact, there is neither redemption nor elasticity in the bond-secured notes.

The CHAIRMAN. Are there any other questions about this particular subject?

Mr. TALBERT. If not, Mr. Chairman, I will voluntarily revert to a question asked of Mr. Wardrop. I believe Governor Powers asked how many of these reserve cities it has been in the mind of our committee to recommend to be established.

Mr. POWERS. Redemption cities?

Mr. TALBERT. Yes; I mean redemption cities, and whether in some cases it would not be advisable to establish as "redemption cities" some cities that are not now in the reserve-city class. I will answer that there are two reasons why this should not be done. In the first place, we should make the existing law fit as nearly as possible into this new plan, or, rather, make the new plan fit as nearly as possible into existing law. In the second place, there could be no reason for excluding any existing reserve city from redemption privileges. In fact, I think that inasmuch as the law now compels banks in all such cities to carry certain specified reserves, which it does not require of banks in a city that is not a "reserve city," it would be entirely proper and perfectly appropriate that every

"reserve city" should be made a "redemption city;" and for the same reasons every "central reserve city" should be made a city of central redemption. Perhaps it would not be out of place to explain that subject briefly.

My idea in suggesting that the "central reserve cities" be made cities of central redemption would be to escape the necessity on the part of small country banks, or even banks in smaller reserve cities, to make arrangements for redemption of notes with so large a number of banks. Take a bank in Atlanta, for example, or in Des Moines, both of which are reserve cities. It could arrange with a single bank in New York, St. Louis, or Chicago (the three central reserve cities) to make in its behalf redemption arrangements in every "redemption city." It would not be necessary to compel a small bank to maintain so many accounts and to make so many redemption arrangements. In this simple manner, through the banks in the central reserve cities, banks in the interior and in ordinary reserve cities could maintain by means of one agent and one reserve account perfect redemption facilities in each of the 39 reserve cities. No more complex machinery would be required for such redemption than is now employed in our large clearing houses where members "clear" the checks and effect the settlements of nonmembers.

Mr. POWERS. That was my notion about it exactly.

Mr. TALBERT. It is entirely practicable. There is no difficulty in the way that I can see.

Mr. JAMES. What would be the difference in the solvency of a national-bank note and a credit note under the system you propose?

Mr. TALBERT. I do not think there would be any, because I think they are both good.

Mr. JAMES. What amount of national-bank notes remains in the pockets of the people?

Mr. TALBERT. That is a very difficult question.

Mr. JAMES. Proportionately.

Mr. TALBERT. I really could not answer that. I have no statistics.

Mr. JAMES. Could you give us any idea?

Mr. TALBERT. The way I should figure that is this: Some one has just shown that there are about \$15 per capita in the pockets of the people, on an average, in all kinds of money. The national-bank notes would probably be held in nearly equal proportion to other paper currency outstanding (possibly somewhat more), volume for volume.

Mr. JAMES. Fifteen dollars per capita?

Mr. TALBERT. Yes; of all kinds of money in the pockets of the people. I do not mean all told in the channels of trade or commerce or national-bank notes alone.

Mr. JAMES. What amount would that be in national-bank notes?

Mr. TALBERT. I should say probably about 30 per cent, or \$5. This is probably too large an estimate.

Mr. JAMES. How can you escape the reasoning that a like percentage of credit notes would not remain in the pockets of the people if they are equally as safe?

Mr. TALBERT. They unquestionably would. I am glad you put the question in that way. Mark you, the amount of credit notes we are proposing to issue is about one-fourth only of the possible issue under the present law of bond-secured notes.

Mr. PRINCE. The reason I ask that question is this: It is stated in the Chicago Tribune of yesterday that such is permitted, and there is this agitation going on all through the Northwest. If the Comptroller permits national-bank notes unlawfully to be now used as reserve, the next step will be to allow this elastic currency to be used as a reserve. I want to ask you this question: In stress of financial times may not the banks in like manner be permitted to use elastic currency as a reserve money? Of course your answer to that would be "no," as it is "no" to the other.

Mr. WARDROP. It would be illegal, sir, to do it.

Mr. PRINCE. I am aware that the law forbids it. Later on I may ask that question of Mr. Talbert, with the permission of the chairman, whether this is now permitted to be done in violation of law by the Comptroller of the Currency.

Mr. WARDROP. Let me say a word on that subject. In the first place, take our own case. We carry a certain amount of reserve in a separate vault, to which the teller has no access. In that vault we would think of putting nothing but legal-tender notes. The national-bank notes never enter that vault. As the teller receives a great deal of money during the day and does not have time to assort it when he makes up his cash at night, he has a certain amount of money on hand that is mixed, and in figuring that he figures that there is 20 per cent of it national-bank notes, and the rest of it he figures as reserve. He only does that until the next day, when he perhaps gets time to assort it, and I understand that some of the bank examiners, in examining a bank and finding this mixed money, have some rule of estimating it, because they would not have time in their examination to assort it.

Mr. WEEKS. That is an individual equation of the bank examiner, is it not?

Mr. WARDROP. Yes; but the Comptroller does not allow us to count national-bank notes as reserve.

Mr. PRINCE. But the Comptroller receives the report of the examiner, and the examiner is under oath, and he can not falsify, whatever the individual bank shows, can he? So that it must of necessity come back to the Comptroller, because the acts of the agent are the acts of the principal, and he is the principal and they are agents.

Mr. WARDROP. Yes.

Mr. PRINCE. That is, if such a condition obtained. I say it is charged. I do not say it is so.

Mr. WARDROP. I think a credit currency would help the matter very much, because there would be a more general assortment of the notes in order to get your credit notes out and get them redeemed. I think there would not be so much difficulty in making up reports and there would be fewer bank notes counted as reserve.

Mr. PRINCE. Those are all the questions I desire to ask.

Mr. GILLESPIE. Right on that same point. I read from Mr. Forgan's address that has been distributed here. See whether you indorse what he says:

"Under our erroneous system, however, such surplus, instead of being redeemed and put out of existence, performs the functions of real money and becomes the fictitious basis of an expansion of credit. This illegitimate expansion of credit on a false basis is frequently the cause of the reduction in the rate for call money to a point below that

which the banks are themselves paying for deposits. This affords an opportunity and becomes directly responsible for speculation in Wall street on a large scale. But as soon as commerce again has need for the circulation, which it always does in the fall, this surplus currency, which has been forming a fictitious money reserve in the banks, is withdrawn, and curtailment of the Wall street credits which have been based upon it becomes necessary. This the banks accomplish by raising the call-loan rate, and when the pressure continues the rate rises to a point as absurdly and dangerously high as it was previously absurdly and dangerously low."

Mr. WARDROP. He is referring there to the bond-secured notes.

Mr. GILLESPIE. Yes.

Mr. WARDROP. They come into the banks. They can not be redeemed under the present law. With a limit of \$3,000,000 a month they can not be redeemed.

Mr. GILLESPIE. They can not be retired?

Mr. WARDROP. I mean retired.

The CHAIRMAN. You want to make a distinction, I suppose, between redemption and retirement?

Mr. WARDROP. Yes. They can not be retired.

Mr. GILLESPIE. I understand. They can be redeemed to any amount.

Mr. WARDROP. They can be redeemed to any amount, but they can not be retired. They accumulate and the banks do not want them in their vaults, earning them nothing, and naturally if they could loan them even at a low rate, no difference how low the rate, it is that much better than keeping them in the vaults idle. When he speaks there of that word "reserve"—

Mr. GILLESPIE. That is the word I had in mind.

Mr. WARDROP. He does not say legal reserve.

Mr. GILLESPIE. That is what he means?

Mr. WARDROP. No; I do not think so. It is reserve funds the banks have, but he does not say legal reserve.

Mr. GILLESPIE. Then, as I understand, you do not subscribe to this statement at all?

Mr. WARDROP. I do subscribe to it, but not in the sense of legal reserve. It is reserve funds the bank has not loaned, but not legal reserve, and I do not think he means legal reserve.

The CHAIRMAN. Is that in the form of a question, Mr. Gillespie? My attention was diverted for a moment.

Mr. GILLESPIE. Yes; I read this statement from Mr. Forgan's address that was handed around to the committee the other day, and asked this gentleman if he subscribed to that statement.

The CHAIRMAN. What is the statement? Excuse me for asking again.

Mr. GILLESPIE. I will read it again:

"Under our erroneous system, however, such surplus, instead of being redeemed and put out of existence, performs the functions of real money and becomes the fictitious basis of an expansion of credit. This illegitimate expansion of credit on a false bases is frequently the cause of the reduction in the rate for call money to a point below that which the banks are themselves paying for deposits. This affords an opportunity and becomes directly responsible for speculation in Wall street on a large scale. But as soon as commerce again has need for

the circulation, which it always does in the fall, this surplus currency, which has been forming a fictitious money reserve in the banks, is withdrawn, and curtailment of the Wall street credits which have been based upon it becomes necessary. This the banks accomplish by raising the call-loan rate, and when the pressure continues the rate rises to a point as absurdly and dangerously high as it was previously absurdly dangerously low."

Mr. WARDROP. Would you allow Mr. Talbert to give his opinion of this matter, Mr. Chairman? He is a Chicago banker.

The CHAIRMAN. Yes; when he appears before the committee. You may reserve your question, Mr. Gillespie, and ask him.

Mr. WEEMS. Is not the reserve referred to by Mr. Forgan in the extract read the reserve accumulated during the redundancy period that it is dealing with?

Mr. WARDROP. Yes.

Mr. WEEMS. A reserve greater than the lawful reserve?

Mr. WARDROP. Yes, sir. I think he also refers, though, to the excess reserve also occasioned by the oversupply of national-bank notes.

Mr. GILLESPIE. He said that in his statement here. It was winked at somewhere.

Mr. WEEMS. He does not use the word "fictitious" as describing a part of the reserve required by law which is surreptitiously allowed to be made up of bank notes. He does not use that adjective in that sense in the extract that has been read.

Mr. WARDROP. I think not, sir. In figuring our reserves we first figure the legal reserve according to Government requirements. Then we also figure our reserve to ascertain the actual cash reserve, taking into account our national bank notes and bank balances, which are not kept with legal reserve agents, for the purpose of knowing our actual available reserve for loaning purposes.

Mr. WEEMS. What I wanted to ask is this: Is it not ascertainable from experience what average percentage of your mixed currency at the close of the day's business in Pittsburg is national bank notes? Is not that pretty closely ascertainable from experience?

Mr. WARDROP. Yes, sir; but that would vary quite considerably.

Mr. WEEMS. Has there been an honest attempt made to ascertain the average?

Mr. WARDROP. I do not know, sir, whether there has or not.

Mr. WEEMS. Do you know one way or the other whether the practice that obtains on the part of any of our national-bank examiners of figuring that at a certain percentage is based on an attempt to reflect the result of actual experience?

Mr. WARDROP. I do, sir. I know that a bank examiner went into a bank, took the mixed money, counted every single package, figured the amount of legal reserve in each package, and made an exact statement of the entire amount on hand.

Mr. WEEMS. I refer to where that is not done, where the examiners merely figure that a certain percentage of the mixed currency is bank notes, without counting. Have you any knowledge of such estimates being a mere winking at the allowing of the carrying of national bank notes as a part of the reserve? So far as you know, is it an honest attempt to reflect what experience has shown to be the actual percentage? Have you any knowledge as to what the practice is in that respect on the part of bank examiners?

Mr. WARDROP. No, sir; I have not.

Mr. GILLESPIE. You have stated that on one occasion you know he went through one bank and counted all the money and made the percentages.

Mr. WARDROP. Yes; I know that.

The CHAIRMAN. I did not understand your question, Mr. Gillespie.

Mr. GILLESPIE. I called attention to the fact that Mr. Wardrop stated that on one occasion he knew a bank examiner to go through a bank and make an accurate estimate of the percentages of the different kinds of currency.

The CHAIRMAN. An actual count, you mean, so that it was an exact statement of the situation of that bank?

Mr. GILLESPIE. Yes. He had to count it first to see how much of each kind there was. Then he gave out the percentages. Mr. Wardrop, did you ever know a national-bank examiner to do that with that bank more than one day, or with any other banks except on that one occasion?

Mr. WARDROP. That is the only occasion I know of.

Mr. POWERS. Do you not understand that these bank examiners, through long experience in counting the money in different places, have come to a conclusion of about what the general average is—that is, reserve money?

Mr. WARDROP. Well, I should think that is true, sir. They must have a pretty good idea in the different banks they go to, and with their experience they must have a pretty accurate idea of the average amount of reserve.

Mr. WEEKS. I suggest that as Mr. Talbert has been a bank examiner he can quite likely answer these questions.

The CHAIRMAN. He is coming on later. Have you any further questions, Mr. Powers?

Mr. POWERS. I want to know how many of these redemption cities you propose to have?

Mr. WARDROP. I do not know whether that was thoroughly discussed or not, but it seems to me there should be in the neighborhood of 25 or more.

Mr. POWERS. How many reserve cities have we now?

Mr. WARDROP. We have 42, I think.

Mr. POWERS. Why would it not be well to have outside cities as well as the reserve cities?

Mr. WARDROP. It might be a good thing to do that.

The CHAIRMAN. Might it not be well to have cities that are not now reserve cities made redemption cities?

Mr. WARDROP. I do not think it necessary. I think the reserve cities are well enough placed through the country. There are 42 of them, and I think there would be enough of them.

Mr. POWERS. It would necessarily work inconvenience, would it not, to a bank in the country to have to do business in two distinct cities—to have to redeem in a city different from where it kept its reserve?

Mr. WARDROP. I do not know that it would.

Mr. POWERS. I supposed it would be inconvenient for a bank that had a reserve in a city to have to also arrange to redeem its currency in some other city.

Mr. WARDROP. Well, it could arrange that, I should think.

Mr. POWERS. A large bank might, but I should doubt if a small bank could very well.

Mr. McCREARY. Is there not a limitation as to inhabitants in regard to the question of reserve cities?

Mr. WARDROP. Yes; I believe there is.

Mr. McCREARY. I understand they are required to have 20,000 people.

Mr. HAYES. But not all cities of 25,000 are reserve cities.

Mr. McCREARY. No; they are selected by the Comptroller, and the matter is arranged for under that limitation.

Mr. GILLESPIE. You speak of one fact or element in this currency that will tend toward its redemption—that is, that it can be sent without cost to the center for redemption. Could we not give that same element of elasticity to present national-bank-note currency by making the same provision with respect to it?

Mr. WARDROP. It is redeemable now without expense. We can ship national-bank notes to Washington without charge.

Mr. GILLESPIE. Then there would be no difference, so far as that being an inducement to redemption is concerned?

Mr. WARDROP. Excepting this: You ship your money to Washington and get your returns from Washington; but suppose a bank in the West wanted its reserve in Chicago. Under this plan of credit-note redemption you could ship the notes to Chicago, and they would be redeemed there, and the money would go just where it was wanted.

Mr. GILLESPIE. To meet that objection we could change the law with reference to where the present bank-note currency is to be redeemed. We could establish redemption agencies conveniently over the country.

Mr. WARDROP. Yes; you could redeem it, but you could not retire it.

The CHAIRMAN. Is there any other question to be asked of Mr. Wardrop?

Mr. WEEKS. In that connection I will ask one question. Are you in favor of the present limitation of the retirement of national-bank currency, Mr. Wardrop?

Mr. WARDROP. Three million dollars per month?

Mr. WEEKS. Yes.

Mr. WARDROP. No, sir; I am not.

Mr. WEEKS. That in itself prevents any elasticity or any great elasticity in national currency, does it not?

Mr. WARDROP. Yes, sir.

Mr. WEEKS. Would you remove all limitation?

Mr. WARDROP. On that question I am not quite certain, sir; but it should be increased, if not entirely eliminated. I think we should be allowed to redeem more than \$3,000,000 per month.

Mr. WEEKS. If it were entirely removed, would it not tend to create violent fluctuations in Government bonds?

Mr. WARDROP. I think possibly it might do so. I think, therefore, it would be better to largely increase the amount that could be retired monthly.

ADDITIONAL STATEMENT OF MR. TALBERT.

Mr. TALBERT. Mr. Chairman, I desire to thank the committee, each of them individually, for the patient, painstaking, and careful hearing they have given us. I am sure I voice the sentiments of every member of our committee in thanking you. You have listened at-

tentively to what we have had to say, as is shown by the questions that have been asked, and we appreciate it very much. You have given us a full and free opportunity to be heard; if we have not made ourselves clear and convincing, it is our own fault.

Now, as to the special remarks I wish to make. I fear new subjects will be opened for discussion, and probably it would be better first to settle the questions that have been asked. I think they are important and to the point.

The CHAIRMAN. Use your own pleasure about that.

Mr. TALBERT. I should like first to answer whatever questions are to be asked on the subjects brought up by Mr. Wardrop's remarks.

Mr. PRINCE. The question I asked was this: Do banks now use, by permission of the Comptroller of the Currency, national-bank notes as reserve money?

Mr. TALBERT. No; not with his knowledge or consent. To say that in actual practice and daily experience a small country bank does not now and again have a few national-bank notes in its reserve chest would be to misstate the facts. I was a bank examiner for five years. I traveled over a large part of the western country, beginning in Louisiana and Texas and extending through Arizona, New Mexico, Colorado, Utah, Wyoming, and the intermountain country; also in Minnesota, and finally in the city of Chicago. My experience relates not only to country banks, but to many city banks. I found in all reserve and central reserve cities that bankers were very careful lest they included national-bank notes in their reserves.

Mr. PRINCE. You mean how they excluded them?

Mr. TALBERT. Yes. How they excluded them. The majority did exactly as Mr. Wardrop did. The notes were carefully assorted, but perhaps not on the day of receipt. Of course, you understand, when there is an active business day, and the deposits are received in very large amounts, the tellers are in a rush, and perhaps do not assort the currency as carefully as they do the next day. In the case of our own bank I know we have a number of tellers, probably half a dozen, who do nothing but assort money. Not a dollar in the shape of a national-bank note ever is counted as reserve. We would not dare to count it as reserve money, not only because it is against the law, but because we do not think it is good banking.

In my experience national-bank notes circulate much more freely in the country and are much more commonly held by banks, not in their reserves, but in their cash, than by the city banks. The reason is obvious. We in the city are obliged to force these notes out all the time. In fact, we prefer to pay out nothing but national-bank notes, as far as we can, to keep reserve money intact. I think that answers your question. The Comptroller does not sanction counting them as reserve money.

Mr. PRINCE. The Comptroller does not sanction it, but as a matter of fact does such a condition exist in any of the banks of the country?

Mr. TALBERT. To a very limited extent, I should say, yes. The amount is very small, and results only from what I say, because it is not always convenient to assort it at the close of business. They do it the next day.

Mr. WEEKS. Right in this connection, is that done with the intention of evading the law?

Mr. TALBERT. No.

brokers, not for loans on sixty days' or ninety days' time, but for twelve and even fourteen months. We see it nearly every day. They are apprehensive of the future. They have obligations maturing next spring, and fearing the uncertainty of conditions which may exist then, or which may become such as to curtail their credits, are borrowing and paying these high rates now for twelve or fourteen months in advance. This is not healthy, and constitutes a heavy tax on the cost of doing business or making goods. If banks had the power to issue these credit notes, ready and available, there would be no occasion for manufacturers or merchants to make their borrowing arrangements twelve and fourteen months ahead of time and pay unnecessary interest charges. Many are even forced to make permanent loans in the shape of bonds.

Mr. JAMES. Do you know how much money is held by the various national banks throughout the country, placed in them by the Government without any interest?

Mr. TALBERT. I have not the exact figures, but it is an extremely large amount; probably \$125,000,000.

Mr. JAMES. They get that absolutely without interest, do they not?

Mr. TALBERT. Yes; but banks are required to buy bonds to secure those deposits.

Mr. JAMES. But they lend to the people at such a rate of interest as they can get, do they not?

Mr. TALBERT. Certainly; at the going rate; that is what they get it for.

Mr. JAMES. That is what I thought.

Mr. TALBERT. Mr. Chairman, if there are no more questions, I wish to speak, as briefly as I can, concerning certain things I had in mind yesterday. I am not entirely sure that what I am going to say is appropriate or that it should be said; but, in view of the fact that this is probably the last time the members of the bank committee will have occasion to appear before you, and of the further fact that possibly after we leave, the question may come before you, I shall venture to speak of it in advance.

I refer to certain suggestions that have been made, both publicly and privately, by the Secretary of the Treasury. The Secretary was present during the deliberations of this commission when we were endeavoring to formulate this plan, and we understood, in a general way, he favored it. He expressed himself afterwards, both publicly and privately, as not only being favorable to it, but that he would be delighted to see it enacted into law; and that but for the hope that some such law might be passed, he already would have retired to private life. This support encouraged us greatly. We find now that the Secretary is not fully satisfied in his own mind concerning some details of this proposition, and that he thinks perhaps a further concession to the popular notion of a high tax might be wise and ought to be considered very carefully. In fact, he thinks it is advisable to increase the tax, and does not believe it would be possible to procure favorable action (certainly not at this session) unless the tax is raised. He realizes, however, that it is not practicable to impose a high tax and to maintain a high reserve, also. As between the two he has, in the most friendly spirit, ventured the suggestion that the reserve against credit notes be practically dispensed with and the proposed tax considerably increased.

The CHAIRMAN. There is no suggestion of that kind in any public statement.

Mr. TALBERT. I am speaking of a private suggestion.

The CHAIRMAN. He suggested it to you gentlemen?

Mr. TALBERT. Yes; privately. That is why I say I do not know whether it is entirely appropriate for me to speak of it; but he made these suggestions in a kindly spirit, and in aid of the plan, as he sees it, and what I am saying is in the same spirit. I wish to answer the arguments that I know are in his mind, and that, if he is called upon, he may make concerning an increased tax and a decreased reserve. He thought we should raise the tax, probably to 4 per cent, and as an offset against that we should suggest a proportionate reduction of reserves. We have endeavored to point out, and the burden of our whole contention is, that the secret of elasticity and efficiency lies in active redemption. You can not have active redemption unless you have lawful money in hand with which to redeem the notes. It would not be safe, and conservative bankers would not issue notes without adequate reserves, whether the law required it or not. We can not afford to pay a high tax and also carry a high reserve. We can not issue notes safely without the necessary reserve, therefore, any increase in the rate of taxation would be prohibitive.

In stating this fact to Secretary Shaw, and asking how he would meet the difficulty and how overcome the scruples of conservative bankers who would not permit a liability to be outstanding that they were not prepared to extinguish on demand, he said, "I think I would suggest increasing—in fact, I have suggested it in my report—the general reserves of the banks by 1 or 2 per cent, or even $2\frac{1}{2}$ per cent." Let us see how this would affect the banks. I can only argue from the point of view of my own experience and apply that experience to all banks. Take the bank with which I am associated. Our lawful reserves are 25 per cent. Our deposits are \$40,000,000. If the reserve be increased to $27\frac{1}{2}$ per cent, we should be obliged to augment the amount of lawful money on hand substantially \$1,000,000. Two and a half per cent of \$40,000,000 is \$1,000,000. We should be obliged to contract our loans in order to procure the additional \$1,000,000 in lawful money.

The CHAIRMAN. How much would that be?

Mr. TALBERT. Five million dollars, substantially, in lending power, to get a million dollars more reserve. For what purpose? In order to issue a possible \$500,000 of credit notes (our capital being \$2,000,000).

Let us apply the same test to the banks in the whole system. I think the capitalization of all national banks is a little over \$800,000,000, and their deposits somewhere in the neighborhood of \$6,000,000,000. Two and a half per cent of \$6,000,000,000 is \$150,000,000. A contraction of \$750,000,000 in the lending power of the banks would be required to get that two and a half per cent increased reserve, and this shrinkage would gain a possible credit-note issue of only \$200,000,000 at the limit. It would therefore be impracticable and dangerous to attempt to increase the present reserve requirements, and it would be equally undesirable and unsafe not to compel the banks to keep the same reserve against these credit notes as against any other liability.

The CHAIRMAN. Especially at this time.

Mr. TALBERT. Especially at this time, but at any time it would be risky. The Secretary further suggested that instead of a guaranty fund, such as we propose to create and to maintain by adequate taxation we impose a high tax on the currency in lieu of all reserves or other burdens and proposed that the Government be required to guarantee the notes. That idea takes us back to what Mr. Prince said yesterday. If we are going to ask the Government to guarantee these notes, we might as well go back to a greenback issue. What reason have we to ask for the Government guaranty on these notes? The banks of this country owe the public to-day \$6,000,000,000.

The CHAIRMAN. These are the national banks only?

Mr. TALBERT. I am speaking only of the national banks. They owe the public \$6,000,000,000. The redemption of that enormous debt is going on actively and efficiently through our clearing houses daily at the rate of three or four hundred million dollars. We do not ask and do not desire the Government to guarantee our liabilities. We are able to pay them on demand. We shall be just as able and as willing to pay these notes, but conservatism and safety demand that proper reserves be carried against them. There is no reason why there should be a difference between the amount of reserves against the two forms of demand liability. We are only asking for a change in the form of 4 per cent of our liabilities and not any change in the amount of liability or in the reserves against it.

The CHAIRMAN. Is there any more reason for asking the Government to guarantee these notes than there is for asking the Government to guarantee any other liability?

Mr. TALBERT. Absolutely none. We do not ask the Government guaranty. We propose to put a sufficient amount of funds in the hands of the Government as trustee to pay the notes of failed banks beyond peradventure or question and to maintain that fund. The solvent banks propose to pay their own notes and also to provide the machinery and pay the cost of doing it, just exactly as they now redeem three or four hundred million dollars a day of liability to the public.

Mr. JAMES. Just on that point. You oppose making these credit notes a first lien on the assets of the banks?

Mr. TALBERT. No; I am in favor of it personally, but as a measure to go before the people and to be favorably received by the banks themselves it is impossible. That has been argued here clearly and to a conclusion, and the reasons for it have been stated. Without rehearsing the whole matter I can only say that it is impracticable. The notes could not be made safer, even by making them a first lien, because the tax fund is forty times sufficient. For this reason the "first lien" would never be exercised if it existed. The advantage, however, of making the notes a first lien on the assets of a bank are manifest in the abstract, and the arguments in favor of it are logical, equitable, and sound. If there were no banks but national banks in our system, then there could hardly be two sides to the question. But the existence of many and strong competitors to national banks made it seem to the committee undesirable to make the notes a first lien lest banks hesitate to issue them.

Now, the last point. Secretary Shaw said: "Gentlemen, admitting the possibility of getting favorable action on this measure, which I should be delighted to see you do, you could not possibly get the

necessary plates prepared or notes printed if you are going to have a different kind of note. There are some 20,000 plates already prepared in the Treasury Department from which various issues and denominations of national-bank notes have been printed. If we could get the Government guaranty, I would suggest using the same plates to print the credit notes;" but on the national-bank note where it is stated, "This note is secured by United States bonds deposited in the Treasury," and so forth, the plate could merely be changed so as to read: "This note is guaranteed by the United States." The only change in the plate, from a practical point of view, would be that it would be necessary to block out the wording of a single line and put in new wording to conform to this suggestion. In this way these plates could be rapidly prepared and the money gotten ready quickly.

Aside from the implied Government guaranty I see no objections to that except these:

(1) I believe the proposed credit currency is sound, safe, abundantly secured; adequate reserves required, and redemption facilities complete and ample.

(2) I also believe that we ought to stand on the merits of this plan and go before the public with a note that is in fact exactly as represented on its face—a pure credit note.

(3) I do not think it should be mixed or merged with the national-bank-note issue.

(4) I do not think it should be confused in the minds of the people with the national-bank notes at all. In fact, the more we divorce the two issues and the clearer we instill into their minds the principle that the national-bank note (when the occasion for its present existence is removed) ought to be retired and supplanted by a scientific credit currency the better off we shall be, and that any attempt to unite the two issues or to make them uniform in appearance would tend to mislead the public and to give erroneous teaching in respect to the principles of money and would be a mistake.

Now, as to the cost of plates. The Secretary said it would probably be \$2,000,000, and it would be impracticable to prepare these plates, not only because they could not get engravers enough to do the work as rapidly as would be required, but that without a special appropriation from Congress of at least \$2,000,000 there would not be any fund available from which the payment for engraving these notes could be made.

The CHAIRMAN. If you could change those existing plates, as he suggests, those same plates could be changed for this purpose and the note marked so distinctly and permanently that there would be no confusion.

Mr. TALBERT. I think a matter of coloring might accomplish that and, at least, answer temporarily.

The CHAIRMAN. Certainly.

Mr. TALBERT. I was going to say this: If the Government were required temporarily to pay engravers for preparing these plates, the banks would return the cost. The banks expect to pay the expenses of the preparation of plates and printing of notes. A plate of four notes might cost \$100. The bank could be required to pay for it in advance. Why not pay for the plate when application is made

for the currency? I think that objection is fully met. Thank you again for your attention.

The CHAIRMAN. Does any member desire to ask Mr. Talbert any questions? If not, we will excuse him from further service.

**ADDITIONAL STATEMENT OF JOSEPH A. McCORD, OF
ATLANTA, GA.**

Mr. McCORD. Mr. Chairman and gentlemen, the remarks of Mr. Forgan before this committee and in his printed statement have misled some minds, although Mr. Forgan did not so intend, about the reserve kept by the inland banks or the banks outside of reserve cities. As Atlanta is in that class of banks, I think it is my duty to defend our position; not to defend the fact that we are carrying legal reserves, but to say that we are carrying legal reserves. Mr. Talbert very correctly explained the conditions that exist in the country banks, and he is very familiar with them from having been an examiner; but I think Mr. Talbert will bear me out in this statement as well. Say a bank had a running deposit of \$2,000,000, its reserve naturally is \$300,000. It can carry six-fifteenths, or two-fifths, of that in its vault and nine-fifteenths, or three-fifths, with reserve agents.

Now, as we know what our even tide of business is, we set aside and keep the reserve for the run of business; but it is almost a physical impossibility for the teller to daily separate from the flow above or below the small difference in bank notes and in silver certificates and gold certificates. Therefore it has become the custom, I will admit, for this surplus amount, over and above what you determine as a level reserve, to be carried in general funds. But for my own guidance and information I have our teller, at different seasons of the year, assort a day's work and determine how much of that was national-bank notes and how much legal reserve money. In the fall season, when we are getting the currency to pay for the cotton, the percentage of national-bank notes in a day's deposit naturally runs from 38 to 40 per cent of the total currency put in that day. In the spring months, when the money is not so active and continual redemptions are being sent in, the percentage of national-bank notes goes away down. His record on one occasion was 20 per cent; on another occasion, at another time of the year, it was 40 per cent. So it has become a custom with the tellers to estimate for their daily money about 30 per cent, or one-third. They usually run a three through it, counting that as national-bank notes coming in in that day's money.

I simply asked the privilege of making this statement to make clear that the country banks were not in any way seeking to avoid the legal reserve; that they are making every effort possible to live up to the legal reserve, but that this question came about in that way. These examiners come in and they know about the proportion, and they run a third through that extra surplus money, and go on with it. They count every bill, gentlemen. You need not be afraid of that. They count every bill and every piece of silver and every piece of gold. They know what is in there when they get through. There is no question about that; and it is wrong to make an imputation

upon a national-bank examiner that he is helping to evade the law. They are not doing it.

I thank you for the privilege of making this statement, because I wanted to defend the bank to which I belong and the officers of this Government, not from the attack made by Mr. Forgan, because he made no attack, but from the impression gathered from his remarks relative to that.

Mr. PUJO. Mr. McCord, I understand your statement to be that this percentage of national-bank notes which is estimated forms no part of the legal reserve.

Mr. McCORD. It does, in a very small amount. You see, when you close a bank's work at 2 o'clock—at probably 2 o'clock and 2 minutes—the national-bank examiner is right at the door. He counts everything in sight before he lets your teller touch it. There might be a possibility of a day when the national-bank note, by the condition of the country, does creep into your reserve; but what is the law on that? That you must replenish that reserve in thirty days. A bank can do that in thirty days. There is absolutely no intention and no desire on the part of national banks in the country, outside of reserve cities, to evade the law. We try to live up to the law, not because it is a legal requirement, but, gentlemen, because it is safe and sound to our institutions to shove out the national-bank notes and hold our reserve. It gives us a loaning power.

I stated before the committee that I secured the indorsement of the Atlanta Chamber of Commerce. Since I have been here I have received the resolutions of the Atlanta Clearing House Association, of which I happen to be the president.

The CHAIRMAN. What do they say?

Mr. McCORD. They are as follows:

Whereas it has been a well-recognized fact by the business interests throughout the country for many years that financial legislation has been needed, looking to an elastic currency, and to a discontinuance on the part of the United States Government in withdrawing unnecessarily large sums of money from circulation; and

Whereas there has been a wide difference of opinion as to the various plans proposed; and

Whereas the recent committee appointed by the American Bankers' Association have recommended a plan: Now, therefore, be it

Resolved by the Atlanta Clearing House Association of the city of Atlanta in convention assembled, that we do indorse the plan proposed by the said committee, because it provides for an elastic currency that is safe, and provides that the Government shall deposit in national banks at interest all sums over a reasonable working balance, thus offering a like benefit to all sections and giving the same benefits to small banks as to large ones, and that we commend our Senators and Representatives in Congress to give this proposed legislation their earnest and active support.

This resolution was passed on December 11, 1906.

The CHAIRMAN. By whom?

Mr. McCORD. By the Atlanta Clearing House Association. It is a repetition, really, of that passed by the Atlanta Chamber of Commerce. This was passed in my absence, and I had no means of drawing it. I was away from home, and the gentlemen sustained me, for which I am very thankful.

There is one other point in reference to the redemption cities and reserve cities. The law places the limit for reserve cities at 20,000 population. That does not necessarily mean that every city

above that must be a reserve city. We have special reasons for keeping Atlanta from being a reserve city, on account of this everlasting draft of money for the country, that reduces our reserves, and we stay in the fifteen limit in order to give all the help possible.

Now, if this credit currency were to become effective, it would probably be well in the State of Mississippi—they have no great cities in Mississippi—to establish a redemption city outside of a reserve city, and it might be so, necessarily, in Georgia, or any other State. I simply add this to show that it might be necessary in order to effect the redemption.

Mr. WARDROP. Mr. Chairman, as the currency commission of the American Bankers' Association is through, I have been requested by the committee of the currency commission to thank you, sir, and the other members of this committee for the patient and courteous hearing that you have given us. We certainly appreciate it, and thank you in the name of the commission, which represents 8,300 banks in the United States.

The CHAIRMAN. On behalf of the committee, let me say that so far as I am able to comprehend the feeling of the committee, they most keenly appreciate the interest that this currency commission has taken in this subject, and particularly feel indebted to the members of the commission who have been kind enough to come here and enlighten us so fully upon this subject, and that to them we are very greatly indebted for the information which is now made a record of the committee.

Mr. WARDROP. We are very glad indeed, sir, that it is so mutual.

The CHAIRMAN. There being nothing further in connection with the hearings on the score of the American Bankers' currency commission, the matter is now before the committee for further suggestions. I have only to remark in this connection that Mr. Conant is here from New York, and has been here for the last day or two, waiting for the conclusion of this hearing in order that he might be heard, representing the Chamber of Commerce of New York City.

What is your pleasure, gentlemen?

Mr. HAYES. I move we take a recess until half past 1, to hear Mr. Conant.

The motion was agreed to, and the committee, at 12.30 o'clock p. m., took a recess until 1.30 o'clock p. m.

AFTER RECESS.

The committee reassembled at the expiration of the recess, Hon. Charles N. Fowler in the chair.

STATEMENT OF W. V. COX, PRESIDENT SECOND NATIONAL BANK, WASHINGTON, D. C.

Mr. Cox. Mr. Chairman, I do not rise to offer any additional suggestions or to further explain the recommendations of the currency commission which have been exhaustively discussed by the members of the commission and the Committee on Banking and Currency, but to assure you that the report which has been before you for the past three days has my support.

Washington, where I have resided since I left Ohio twenty-seven years ago, is a unique city in every respect. Our banks can not depend entirely on commerce and trade for support, for we have little commercial business compared with other cities of the same population. We have 13 national banks, with a capital of \$5,402,000. We have 4 trust companies, with a capital of \$6,200,000, trust companies being required to be capitalized at not less than \$1,000,000, a total capital of banks and trust companies of \$11,602,000.

According to the Comptroller's report of November last, the individual deposits in the national banks amounted to \$22,239,257.61, and in the trust companies \$20,687,142.22, or \$47,032,469.58, which includes United States deposits in national banks.

The loans of the banks were \$22,492,210.66, and of the trust companies \$20,607,777.91, or a total of \$43,099,988.57.

The bank clearings for 1905 were \$255,100,031, and for this year, to date, \$276,771,937.14, about \$1,000,000 a day, an increase of over \$21,000,000 during this portion of the year, which is a remarkable showing for this noncommercial city.

We largely depend on the monthly disbursements by the Government. My bank is a commercial bank, our depositors being merchants, contractors, builders and Government employees.

Mr. WEEMS. You have the same stringency in the spring, do you?

Mr. Cox. Our stringency is more acute the last part of the summer and the first of fall. Another reason for shortness of money is that the people of this city are vacation takers. A large per cent leave Washington sometime during the summer and fall. If the average expenditure is \$100 each, you see what a large sum that would be. Our relations with New York are very close. The banks here have such close relations with eastern banks that when the South and the West require money for moving the crops and the cotton it creates a contraction here.

In brief, the conditions that you have heard described in other places are regularly felt here, and our bankers and others are most anxious that Congress enact legislation at this session that will make our currency more responsive and more elastic. In framing a bill, please remember that what we want is a practical measure on lines that will save our country from impending financial disaster.

STATEMENT OF CHARLES A. CONANT, REPRESENTING THE CHAMBER OF COMMERCE OF THE STATE OF NEW YORK.

Mr. CONANT. Mr. Chairman and gentlemen of the committee, I appear on behalf of the Chamber of Commerce of the State of New York, and I desire to emphasize the fact that it is the merchants, the people who do business in the State of New York, who have taken the active part in this reform, rather than the bankers. It is, as has been stated here a few times, but can not be emphasized too often, a question for the borrower and producer rather than for the banker. The banker can usually manage to live under any sort of restriction. It is the borrower, the merchant, the producer who feels the pressure of restrictions. I propose a little farther along to say something regarding the phrase used here occasionally that bankers are asking "privileges." They are not asking privileges. They are asking only reasonable freedom from existing restrictions.

The chamber of commerce committee contains among its five

members two who are very conspicuous merchants, whose names are probably well known to every member of this committee—Mr. John Claffin, the great wholesaler, and Mr. Isidor Straus, of the firm of Macy & Co., the large retailers, and a member of a family which has done much in the public interest in very many directions. Moreover, when the report was presented in the chamber of commerce by the committee for consideration, the man who was most active in urging its prompt adoption was Mr. Cornelius N. Bliss, the former Secretary of the Interior, whose connections with the trade of the country are many fold and widespread. It is the merchants of New York, therefore, who are here, rather than the bankers, asking for the means of carrying on their growing volume of transactions.

The chamber of commerce committee prepared a plan which has doubtless been before you, or will be before you, and we were afterwards asked to consult with the members of the commission of the American Bankers' Association, and Mr. Vanderlip and myself, as representatives of the chamber of commerce committee, were present at all the sessions of the American Bankers' Association commission, and concurred generally in their views. Such slight differences as exist between the report of the chamber of commerce committee and that of the commission of the American Bankers' Association are not fundamental differences. They are differences about which we do not care, as members of the chamber of commerce committee, and I do not think the members of the American Bankers' Association commission care about them. What we want is legislation on sound principles, and the principles advocated by the commission of the American Bankers' Association were the same as those advocated by the committee of the chamber of commerce and indorsed by the chamber.

Moreover, so anxious, I may add, was the chamber of commerce to secure united action that Mr. Bliss offered the resolution that our committee have authority to consult with other committees and after such conference to make such recommendations to Congress as we thought proper. We were given plenary power, as the commission of the American Bankers' Association was, in order that results might be obtained. Therefore I come here as a representative of the Chamber of Commerce of the State of New York to urge that some legislation be enacted which will benefit not New York alone, but the commerce and trade of the whole country.

There is one particular in which I feel justified in saying that the plan of the American Bankers' Association is superior to that of the chamber of commerce, and it touches a question which has been a good deal discussed here, and upon which, therefore, I will say a few words.

That is the question of inflation. I do not think either plan lends itself to inflation; but the particular in which the bankers' plan has merit is, I think, that it requires the same cash reserves against notes that are required against deposits. In that requirement, with a proper redemption system, is your absolute and complete safeguard against undue inflation. There can not be inflation of a currency which is linked to gold, and practically that is what is achieved by requiring these reserves. Of course our lawful money consists of several things besides gold, but we have limited the quantities of doubtful money—different forms of Government paper—which can

be dumped into this fund of lawful money, and the increment ever since 1893 has been gold, until to-day gold constitutes \$1,400,000,000 of the country's currency. Therefore, for convenience I will use the word "gold" or "metallic reserve" in discussing this question of the linking of the bank notes to the reserve.

The fundamental advantage of such a provision is that you keep in touch with the exchanges of the world. You can not inflate your currency by overissue of notes when you have to hold a 25 per cent or a 15 per cent metallic reserve against them. You can only inflate it as you import gold, and you can not import gold if the foreign exchanges are adverse. The moment inflation produces unfavorable exchanges by raising the prices of commodities your gold begins to go out. You can not find the gold to constitute the reserve against your notes, and the notes must be driven in. That is a system which works throughout the world in every gold-standard country, or every country with any metallic standard, in maintaining the soundness of its notes. So long as a note is redeemable in coin on demand there can not be inflation, and in this lies the great merit of this additional provision of the plan of the American Bankers' Association—that it links this new currency absolutely to the free movement of gold between the great financial centers of the world.

It is idle to talk of inflation under such conditions. If there is inflation it is world-wide. It is because speculation and credit have been expanded in every country of the world; because in every country where they are not expanded the exchanges will turn from that country where the expansion has occurred, and that country will be compelled to reduce its note issues if those note issues are fixed only in relation to the metallic reserves.

Therefore there can not be undue inflation by the issue of these credit notes, even if the limit were much wider than it is and if the restrictions were much fewer than those proposed by the Commission of the American Bankers' Association. The minute that inflation occurred the supply of gold for reserves would prove deficient, and under the automatic operation of the law the banks issuing those notes would find them coming back so rapidly that they would be incapable of continuing the issue against their impaired metallic reserves.

It is quite possible, as one or two members of this committee have suggested, that a few of these notes may remain permanently in circulation. By permanently, I mean that upon the average there will be some outstanding. I do not think very many individual notes or notes of an individual bank will remain permanently outstanding, because through the processes of deposit in the banks they will be constantly coming back. But it may happen that upon the average some of these notes will remain in circulation in certain parts of the country, where interest rates are high and where the supply of currency is deficient. I hold that with your required cash reserves, and with the fact that there is no movement of gold away from the country, the fact that those notes remain in circulation is the best evidence that they are needed in that particular locality and under those particular conditions.

When you increase the quantity of money in a country the increase is not usually superadded, dollar for dollar, upon the existing stock in the locality where it already exists. The excess flows into the sec-

tions which are deficient in currency. A very striking example of that followed the opening of the gold mines of California and Australia in the fifties. Gold poured into France in a torrent, hundreds of millions of francs within a few months; but that gold did not remain in Paris and in the centers of exchanges. It drifted into the country districts where they did not have any circulating medium before, and instead of doubling prices in Paris or Lyons and other centers, under the quantity theory, it simply filtered into the little villages, where there had not been gold enough before to afford an adequate circulation.

If it should prove, under the operation of this proposed plan, that a few credit notes remained in circulation in districts where interest is normally at 7 or 8 per cent, those notes will be of benefit to the people of those localities. They will afford a means of carrying on exchanges. They will not inflate values in the centers of exchanges and they will do the very work which it is necessary to do, and which I think this bill ought to be framed to do. That can not be considered in any sense an improper inflation of the currency.

A good deal has been said here about the increase in circulation per capita in the United States. I myself have been struck with it a number of times and have tried to ascertain by calculation what was the occasion for it. It is certain that we can not in this country have a currency unduly inflated, else the result of which I have already spoken would ensue and we should be losing gold to other countries. Therefore whatever the level of circulation and credit are in the United States, they can not be out of harmony altogether with those of the other great countries with which we are in touch through the foreign exchanges. I think reasons can be found for this great increase in circulation. I made some figures last night which I think will afford a fairly accurate idea of why a billion dollars in currency has been apparently licked up without any accumulation during the past ten years. I will comment upon these figures briefly and will insert a table on the subject in the final draft of my evidence.

I have the figures of 1896, when circulation was about a billion and a half, and of 1905, when it was nearly \$2,600,000,000. I was compelled to use the figures for 1905 rather than 1906, because the holdings of cash by banks other than national are not yet available in the Comptroller's report for the present year. You have, therefore, an increase in circulation to account for of over a billion dollars, or nearly 70 per cent over the circulation of 1896. That certainly challenges attention and challenges the question whether there has been any inflation during the past ten years.

Mr. WEEKS. That is nine years, is it not?

Mr. CONANT. Yes; nine years, in this case, from June 30, 1896, to June 30, 1905.

In the first place, of course, you have the growth of population, which has been from about 71,000,000 to about 83,000,000. That, at the old basis per capita, would absorb about \$261,000,000 of your little over a billion. Then you have the absolutely ascertainable figures of increase in national-bank reserves, which were \$288,000,000 in currency. I exclude, of course, the redeposited reserves, but actual cash holdings in national banks increased \$288,000,000 in those years. For State and other banks not national there has been an increase of not less than \$170,000,000. You have, therefore, already ac-

counted for \$719,000,000 of the increase, without taking up the question of any increase in per capita in the pockets of the people outside of the banks.

As has been several times pointed out here, the deposits of the national banks and of all other classes of banks have so greatly increased within the last nine or ten years that they have themselves absorbed and taken up a very large amount of cash in addition to what they held ten years ago, so that it would have been conceivable, theoretically, and it comes very near being so practically, that the money left available in the pockets of the people is less than was the case ten years ago, owing to the increased requirements for reserves.

The actual figures, as I made them out, show, as I say, that I accounted for an increase of nearly \$719,000,000 from three sources—growth of the country in population at the old per capita, increase in national-bank reserves, and increase of reserves of other banks. That leaves, of the actual increase to be accounted for, \$363,000,000. That increase of \$363,000,000 may be considered to be in the pockets of the people. But now look at this fact: It is generally conceded that the prices of commodities have risen upon the average more than 25 per cent within the last ten years over the low point of 1896 to the high points of 1905 and 1906. If you assume that that increase in average prices requires the wage-earner, the clerk, and every other man to carry around on the average a corresponding increase in currency of 25 per cent, you will find that item alone, applied to the old circulation, would call for \$442,000,000. Now, the actual increase, which is not accounted for in reserves and otherwise, is \$363,000,000, or about \$60,000,000 less than the increase in prices by 25 per cent would call for if that increase calls for a corresponding increase in the cash of the country.

I will insert a table here presenting figures made from a slightly different standpoint, but going to account for the absorption of currency and the present pressure on bank reserves.

Where the money has gone.

	June 30, 1896.	June 30, 1905.
Net circulation	\$1,506,434,566.00	\$2,527,882,658.00
Population	70,365,000	83,280,000
Money per capita	\$21.41	\$31.08
Amount in banks (Comptroller's Report 1905, p. 51)	\$531,800,000.00	\$967,407,000.00
Net outside banks	\$974,600,000.00	\$1,600,100,000.00
Per capita, net	\$13.65	\$19.22
Amount required 1905, outside banks, at old per capita		\$1,150,000,000.00
If rise in prices of 25 per cent calls for same increase in cash, requirement would be 125 per cent of 1896		\$1,437,535,000.00
Apparent excess, outside banks		\$162,565,000.00
Deposits, all banks 1896 and 1905	\$4,889,773,447.00	\$11,350,700,000.00
Cash at ratio of 18:6	\$531,800,000.00	\$1,250,000,000.00
Relative deficiency in cash, 1905		\$263,000,000.00

I cite these figures to show you that, striking as this increase in circulation is, it can be accounted for without showing any excess in the circulation or any redundancy. Of course, it might readily be said that the increase in prices is the cause of the increase in circulation. That would be true if we were upon a paper basis, or if we were cut off from the interplay of the exchanges of the world. But, inasmuch as we are not exporting gold—on the contrary, we try to

import it and pay high to import it—we show that such redundancy as exists is common to all great commercial countries. There is not a special redundancy of currency in this country as a result of the issue of paper or any other forms of currency.

The CHAIRMAN. Do you mean redundancy or just increase?

Mr. CONANT. I am arguing against the contention that there is redundancy.

The CHAIRMAN. I wanted to call your attention to it. I think it made a wrong impression. I know you did not intend it. You did not mean redundancy, but increase.

Mr. CONANT. There has been a large increase, and I want to show it is not redundancy.

The CHAIRMAN. That is the point.

Mr. CONANT. I have already named several of the things which account for the increase, but there are one or two others that may be referred to as accounting for the increased consumption of money. One is the territorial extension of the field for money. So many new States and Territories have had to be populated and civilized within the last few years that they require a considerable amount of currency for local purposes, where they were making no demand at all ten or fifteen years ago.

Then, of course, the increased prosperity of the workingman, the higher wages he receives, naturally accounts for his carrying more money in his pockets, even irrespective of an increase in prices. If you will multiply the one element into the other, the fact that even at his old wages he had to carry an increased supply of money to meet higher prices, but that he has an increased wage and therefore would carry more money even at the old scale of prices, you will see that you readily account for a very considerable absorption of the stock of money.

Then, of course, there remains the explanation which many consider so important, of the increase in the gold stock of the world. That has been a factor in increasing the stock of money and to some extent in increasing prices. I am not a believer in the quantity theory in its simplest form—that prices will rise in direct ratio to the supply of gold. The proof of that view is afforded by the fact that the stock of gold in use in the world as money has increased in twelve years very nearly 50 per cent—from four billion and a couple of hundred thousand, I think, to about \$6,500,000,000. If that increase in the gold stock meant a corresponding increase in prices, we should have prices 50 per cent above the figures of 1894, 1895, or 1896; but as a matter of fact I think the tables of average prices show, so far they can be relied upon, that the increase in prices ranges from 25 to 30 per cent. Therefore it is not commensurate with the increase of the gold stock of the world.

The CHAIRMAN. Let me ask you a question there. The prices upon which you make your comparison were not a level of prices for a period of years, but the very lowest point of prices, too?

Mr. CONANT. Yes; in 1895 and 1896.

The CHAIRMAN. Therefore that 25 per cent would not be fair, would it?

Mr. CONANT. No; I am not a believer in the theory, anyway, that the rise in prices is a reflection of the increase in gold in any ascertainable ratio. Of course a great increase in the stock of gold does

react through reserves upon prices, but the other factors are so numerous—the changes in the conditions of credit, to which you draw attention, the economies in the use of gold, and other factors—that I do not think it is possible to calculate mathematically and arrive at any result that is at all trustworthy as to the effect of any given increase of gold upon any given increase of exchanges of commodities; but in a very general way, other things being equal, a large increase in the gold stock does operate to increase prices. The trouble is that other things are not equal. We are witnessing at present a great expansion of credit, but a year or two from now we may see a great collapse of credit.

The CHAIRMAN. That is just the point I wanted to make, and I thought it would be beneficial to the committee to bring it out.

Mr. CONANT. I give the figures simply to clear away the idea that we have already an unduly inflated currency. There are some elements of danger in it, perhaps, but they should not interfere with our going ahead and giving elasticity to our currency. If there is any element of danger in our currency, it is in the bond-secured notes, because they are not related to the gold stocks of the world. You can go on issuing them so long as the Government will issue bonds. No matter how much gold you expel, you have no means of regulating your currency and adapting it to the gold supply. Your issue of these notes depends upon the issues of Government bonds, not upon whether we are losing hundreds of millions of gold by export from New York. There is your element of danger, if there is one—the increase from \$175,000,000 of bond-secured notes about ten years ago to \$575,000,000 now.

The CHAIRMAN. Without a reserve?

Mr. CONANT. Without a reserve; yes. If you add the proportional reserve required by law, you would obviate that danger in a considerable measure, because then you could not put out notes unless you imported the gold, and if your notes were redundant and were forcing out the gold, you would have to retire them.

I think the general principles of a credit currency such as has been proposed are coming to be pretty well understood in this country to-day. They were not very well understood ten or twelve years ago, when the present chairman of this committee and his associate from Illinois and a few other gentlemen were pioneers in the effort to secure it; but I think to-day every member of this committee certainly, and, fortunately, a great many people outside of the committee, understand that a bank note is simply a conversion of a form of property or of credit from a form which is not readily exchangeable into one which is readily exchangeable. We sometimes hear the criticism against the issue of credit notes that you can not create capital by printing notes. That is perfectly true. You must have capital to do business. You must have your bales of cotton to move. You must have your wheat crop to move. But the point of the note issue is that it converts those bales of cotton and carloads of wheat into convertible form.

Through your warehouse receipts and other commercial documents you are able to convert into currency—into a means of transferring that wealth—something which you could not deliver in your ordinary everyday transactions as money. You can not deliver a bale of cot-

ton to a man when you owe him a thousand dollars, but you can deliver him a bank note based, in a sense, upon that bale of cotton. That is all the note seeks to do—to put into convertible and transferable form the wealth and the credit which exists, not to create capital where it does not exist.

That brings up a very interesting fundamental question in regard to the issue of bank notes which is sometimes overlooked. That is, as I said, that the banks are not asking privileges of the Government. Historically the bank note could in early times be issued just as freely as the check. The first notes issued in England were printed like our blank receipts or blank notes, to be filled in with the odd amounts for which they were passed. They were under no restrictions. Of course time and experience have taught us that there should be restrictions which will protect the public against loss and which will serve the public convenience.

A man wants to feel sure that the note that he takes is safe. He wants to know it is safe without hunting around as to the credit of the issuer or the genuineness of the note. Governments have wisely ordained, therefore, that there shall be such restrictions on the issue of notes as will make them safe and convenient, and there those restrictions should stop. To talk about granting privileges to a bank when you authorize it to issue notes under proper restrictions is like talking of granting the privilege to a railroad to construct more cars to move the wheat crop, or like talking of giving the privilege to a shoemaker to make more shoes to clothe the feet of the people. There is no privilege involved. It is simply, so far as anything that is being asked here is concerned, a modification of restrictions imposed in time of stress, which have proved onerous, unnecessary, and oppressive.

Neither the bankers nor the merchants who come here seeking this legislation are asking for privileges. We are asking a modification of outworn, antiquated, mediæval restrictions; that is all, and the privilege of note issue, so called, or the right of note issue, is exactly the same as the right given to the owner of gold bullion to bring it to the mint and have it coined. You hear it said sometimes that the privilege or the right of issuing paper money should not be intrusted by the Government to any private individual or any corporation.

It is the Government, these critics say, which issues the metallic money. That is just where the error is made. It is not the Government which determines the volume of the metallic money. It is true the Government has fixed rules governing the issue of metallic money, under which the man who receives a piece shall know that it is of a certain weight and fineness; and that is just what we ask you to do in regard to the bank note—fix restrictions which shall determine that the note in the hands of the holder is what it purports to be; but when it comes to regulating the quantity of those issues, determining their ebb and flow, their output and incoming, the bank note stands upon all fours with gold. The Government does not say to a man who brings a package of gold bullion to the mint "we think there is circulation enough. We can not coin that for you." The Government leaves to the initiative of commerce the determination of the issue of standard metallic money. It should leave to the initiative of commerce the question of the form of paper, only exacting that it have the same qualities as gold money, that it

be absolutely secured and that it be in a form for the convenience of the public.

That is an absolutely fundamental principle which can not be escaped, that the right to issue credit in the form of notes is the same as the right to execute any other instrument of commerce, and the intervention of the Government should be only the intervention which it makes in regard to its metallic standard, to insure that either form of currency should be safe and convenient. I was very glad to hear the member of this committee from Texas echo in substance, I think, the principle laid down by the great English writer, Mr. Hankey, that restrictions upon banks are taxes on the public. The bank and the bank note are only the instrumentalities for carrying on the commerce of the country. It is a short-sighted policy of taxation which imposes burdens upon commerce in action, upon the creation of wealth. Taxes should fall upon accumulated wealth, not upon the processes of its creation, else you divert and derange those processes at every step. You divert capital by taxing in some direction more heavily than others, and you interfere with the free play of the laws of commerce and finance.

It is not possible, as has been pointed out here, I believe, for the banks to make excessive profits, especially under our system. If it is possible for a bank to monopolize credit, to manipulate the rate of interest unduly, and to raise it, it is because that bank has a monopoly. The wider you throw open the door to freedom of issue under proper restrictions to protect the public, the more you minimize the danger that there can be any exactions by the banks from the public which go beyond the legitimate rate of profit upon other capital. In our country, under our national banking law, any group of gentlemen of standing with \$25,000 can form a national bank, and it is not possible for the 6,000 existing banks to form a conspiracy to control interest rates; and if it were possible, as was pointed out by one of the speakers the other day, 6,000 other groups of gentlemen would be in existence in a very short time to underbid them and force them back to the normal rate of interest. Therefore there is nothing to be feared in restoring to the banks that freedom of action in regard to notes which they have in regard to checks.

Moreover, the existing system, by imposing excessive restrictions upon note issues and not imposing them upon checks, is a direct discrimination by the Federal Government by law against the country districts and in favor of the money centers. The money centers can do business through checks, and checks are not taxed 10 per cent, whether they are issued by a state bank or by a national bank. They are not even taxed half of 1 per cent, like national-bank notes, and the holders of them do not have to buy United States securities in order to issue them. In the cities the demand for this credit currency would always be much less than in the country, because in the country a man is more remote from banks, is not always carrying a bank account, and desiring his credit in the form of paper currency, is hampered and restricted and forced to pay high interest rates by our existing system.

For my part, if I were a representative of any district of this country outside of the great cities, I should insist that this great injustice be rectified, and that hereafter that form of credit which is most useful in the country be allowed to be issued by the country

banks, at least, and that the monopoly of freedom of financial operations should not be limited to the commercial centers in the form of certified checks.

Mr. GLASS. Would you repeal the 10 per cent tax upon State banks?

Mr. CONANT. I would not, as a matter of practical operation, because I do not think it would serve the safety and convenience of the public. Even admitting it would preserve their safety and that every State institution would be sound, the necessity of discrimination would involve a great deal of trouble in our country, with its present closely interwoven commerce, its railroads and telegraph, which bind everything so closely together. It would not, in my opinion, be desirable to have issues under 46 different State laws. The National Government has assumed to regulate the paper currency, and I think rightly so, for that reason, that it serves the convenience of the whole country; but they ought to limit those restrictions to what are necessary to serving that convenience.

Mr. GILLESPIE. They are restrictions that give each locality the benefit of the currency that they would have if they had the right of issue.

Mr. CONANT. The State banks, you mean?

Mr. GILLESPIE. Yes. Any regulation which the Federal Government imposes on this system ought to leave localities as free, so far as credit is concerned, as they already are under the existing system.

Mr. CONANT. Yes; so far as is consistent with the absolute security of the whole country; but I do not consider the repeal of the 10 per cent tax a practical or desirable proposition. The principle of the statement of Mr. Gillespie, however, I consider to be entirely sound.

There were one or two questions raised by the gentleman from Illinois which were answered in a way which was fundamentally correct, but it occurred to me that an answer might be made slightly different in verbal form which would perhaps meet better some of the points involved.

One question was, "Would not a circulation on no bonds be worse than one on bad bonds?" referring to the banks before the civil war. It may seem a little paradoxical, but my answer to that question is that a circulation on no bonds would be better than one on bad bonds, for this reason:

The bank which did not have to buy a bad bond, State, municipal, or otherwise, would put all its capital into its commercial assets, and those commercial assets, under existing conditions, at least, would be sound. That is, they would be sound upon the average. Experience shows that the losses upon such assets are trifling upon the average. I think a quarter of 1 per cent has sometimes been calculated. Therefore a requirement that a State bank under those conditions should invest in bonds of certain classes, usually the bonds of the State where the bank was, would militate against safety and not in favor of safety. Otherwise the bank would be conducted as a banking institution, lending upon commercial assets, which assets would, presumably, be good.

It was suggested, and, I think, with a good deal of force—in the same connection, at least—I think it is an argument which has to be carefully considered—that the figures of losses under the national-banking system, in the way we have arrived at them, by figuring what was the actual percentage of loss upon commercial assets and

then applying it to the notes in case there had been no bonds, is fallacious. That would have been fallacious if we had nothing to go upon but the history of bond-secured notes. We might say, without those bond-secured notes the money might have been very badly loaned; but when you consider that the banks which failed, and all the national banks, had a great volume of assets, and that the figures are based upon the employment of their capital in acquiring those assets, then you see the test is a sound one, that the only difference could have been that the bank would have had a little more capital to loan and might have loaned it badly; but I think we are justified in the assumption that as they loaned their assets, amounting to many times their note issues, in their own discretion, and the net loss was only one-eighteenth of 1 per cent a year, with the freedom of issuing as many notes as they did issue without bonds, that freedom could not have been seriously abused. Of course it is conceivable that a bank might have made one or two additional bad loans with the money with which it bought bonds, but the effect upon the percentages would be almost infinitesimally small.

The CHAIRMAN. In other words, to get it as you intend to state it, if they had had the money invested in bonds to loan, these loans would have been just as good as the loans they made?

Mr. CONANT. That is the presumption; and certainly, if they had not been, the difference would have been infinitesimal. No banker, prudent or otherwise, would have said to himself "I will make good loans with my deposits because they are depositors' money, but I will let any Tom, Dick, or Harry have these notes because I am bound to redeem them out of my own money." You could not have found a banker to take that position.

So that if we are justified in the assumption that they loaned their assets prudently during these forty years, those percentages are properly applied to what would have happened to the notes. Your suggestion would have been true if they had issued nothing but notes, and we only had to deal with percentages of notes; but as we had to deal with many millions of assets over these forty years and the loss was only one-eighteenth of 1 per cent on those assets, we have a right to assume that the trifling additional loaning power that they would have had through the notes, and in fact did have in loaning the notes, would have resulted in practically the same percentages.

Mr. PRINCE. Mr. Conant, in order to issue \$50,000 of currency on the bond-based plan, you have to predicate that currency upon purchase of bonds, do you not?

Mr. CONANT. Yes, sir.

Mr. PRINCE. Now, suppose you wanted to issue \$50,000 of credit currency, not predicated upon bonds at all. Do you mean to say that the one is as safe and sound and as readily redeemed as the other?

Mr. CONANT. If you mean to say that if nothing but notes were issued the assets of a failed bank might be greater in the case of the bonds than in the case of the banks holding their own cash, I admit that; but it is just the percentage of that loss you are trying to determine, not that there would not be a loss. We found that the loss on the other assets in all the failures under the national banking system over a series of years has averaged one-eighteenth of 1 per

cent, and that has been without bonds. We say it is proper to apply that ratio to the possible losses in the case you speak of.

The CHAIRMAN. You apply that amount to the whole amount that was invested in United States bonds?

Mr. CONANT. Yes; we concede the loss, but we find it is only one-eighteenth of 1 per cent. We do not claim there could not have been a bank failure in which there would have been a loss as compared to the deposit of bonds, but we claim the ratio of such losses would have been only one-eighteenth of 1 per cent, and we ascertained it by the losses which did occur in the perfectly free assets of the bank over which the Government had no control except its national examinations, and those were very imperfect in the early stages of the system. We find in those uncontrolled assets the losses were one-eighteenth of 1 per cent. Therefore I think we are justified in applying that principle to the losses of the small banks, which I believe were only \$17,000,000 in forty years.

Mr. PRINCE. Yes; but not one of those notes that was bonded was ever repudiated.

Mr. CONANT. That is true.

Mr. PRINCE. They were all paid.

Mr. CONANT. Yes; in something. They were not paid in gold, you know.

Mr. PRINCE. And the holder of the notes knew beyond the peradventure or possibility of a doubt that that was good for 100 cents on the dollar.

Mr. CONANT. In currency, not in gold; 40 cents on the dollar prior to 1879.

Mr. PRINCE. Yes; before the resumption in gold.

Mr. CONANT. The point is there could not have been any loss if there had been a guaranty fund. If I were standing here favoring a free issue without any guaranty fund, I would have to admit there would be occasional losses; but the calculations show that the guaranty fund, if raised by a 1 per cent tax, would cover the losses 18 times over. As was stated by Mr. Perrin, the payments of taxes on circulation under existing law have been \$96,000,000, and if the notes had all been paid out of the fund, without drawing anything from the assets of the bank, the fund would still have \$79,000,000 to the good.

Mr. PRINCE. Then you mean to say, do you, that under the restrictions as presented in this currency plan the credit currency notes issued thereunder, held by the voluntary or involuntary holder, would be just as good as the bond-based notes if he had one in his pocket and the other in his pocket?

Mr. CONANT. Absolutely as good.

There was another point you raised to which I want to refer very briefly. When it was suggested that the bonds of the United States constituted assets the reply was made, very aptly (by Mr. Perrin, I think), that all the assets which they represented had been burned up in the civil war. Then some gentleman here recurred to the point that they rested upon the power of taxation in the Federal Government. That is exactly what we propose to rest these notes on—the power of taxation of these notes by the Government to raise a guaranty fund. It all depends upon the action of the Federal Government in collecting certain taxes.

Of course the fundamental power of the Government to levy taxes without limit for the purpose of liquidation exists, but that power could not be exercised to redeem a mass of notes which were otherwise irredeemable. You could not get the money in quick enough.

Bearing upon that is the question of the assets which the Government does receive through taxation as compared with those which pass through banks.

I did not have by me last night the Secretary of the Treasury's report showing the present volume of Government receipts, but I think it is in the neighborhood of \$500,000,000. The difference is so radical that it makes no difference if you call it a billion; but putting it at \$500,000,000, the amount coming into the Treasury per day would be about \$1,500,000. If the Government were undertaking to do the banking business of the country and to find cash to make the redemption of its own notes, it would have, through the course of current transactions, a million and a half a day to rely on and no other credits. The banks of the country pass through the clearing houses—and that, of course, is only a part of their aggregate transactions—\$157,000,000,000 of commercial instruments during the year, and the average per day is \$436,000,000, as against a million and a half on the part of the Government.

While, as I say, no one doubts the supreme power of the Government to take all our money and all our lives, when you come to the question of prompt action in keeping currency at par, which involves immediate use of the money, not its ultimate use, you find the banks are stronger, even on the clearing showing, not counting their other transactions, by about \$434,500,000 a day than the Government, the Government having a million and a half and the clearings showing \$436,000,000, or if you reduce it to lower figures it would stand in the ratio of \$1.50 a day on the part of the Government and \$436 a day on the part of the banks.

There is a great difference between ultimate redemption and immediate redemption. That is one of the fatal defects of a bond-secured currency. The banks of Spain and of Italy hold a good deal of gold to-day, and some of their statesmen have argued on that line.

In fact, I think in an Italian court of justice when a man tendered notes which were away below par in satisfaction of a judgment or of a debt as legal-tender money the counsel for the man making the tender went before the court and argued that ultimate redemption was the same as immediate redemption; that the fact that the notes might be redeemed some time, that they had some gold and some other resources behind them, was just as good as the fact that they were exchangeable for gold on demand; but the counsel on the other side made the response that he did not think that principle would work in practical business; that if a man wanted a dinner the promise of a dinner a week from now was not quite as satisfactory as to get the dinner to-day. That is the difference between immediate redemption and ultimate redemption. We can not do business on the belief that our notes will be redeemed some time. We have to have them redeemed to-day, and on that point the banks are about three hundred times as strong as the Federal Treasury.

Now, just a word on the first lien, while I am discussing this question of safety. I do not think the first lien is necessary. From some points of view it would be theoretically a desirable thing; but

inasmuch as it is not necessary it might work a serious injustice to the depositors in extreme cases. In the average of cases it would not work injustice—that is, any material diminution of the dividends to depositors; but inasmuch as the depositor has no means of averaging his losses, as the note holder has with the guaranty fund, there would be cases now and then under a first lien where there would be a very material difference to the depositor. Say a bank had \$50,000 in notes and \$100,000 in deposits, making \$150,000 in liabilities, and it failed with only 50 per cent of the assets. On the principle of an equitable distribution to note holders and depositors, each would get 50 per cent of his claim. The notes would get \$25,000 out of the \$50,000, and the remaining \$25,000 required to pay them would be drawn from the guaranty fund. The depositor would get \$50,000 of his \$100,000 claim.

But if there had been a first lien the \$50,000 in notes would have licked up two-thirds of the assets and left only \$25,000 to be distributed to the depositors, or only 25 per cent, where they would otherwise get 50 per cent. While, of course, the case as stated is extreme, and there would be very few such cases, yet in order to guard the depositor against any such possible risk and in order to guard the national banks against the criticism that they are subjecting their depositors to such a risk. I think it is much preferable that the note holders should share ratably with the depositors in the claim upon the assets of the bank, because our statistics show that the demands upon the guaranty fund to make the notes good would be only one-fifteenth of 1 per cent a year.

Mr. WEEKS. Would it be any injustice to the depositor if he made his deposit with the knowledge that there was this obligation out?

Mr. CONANT. Theoretically not, but I think it would be a disadvantage to the banks.

Mr. WEEKS. And the note holder does not obtain any benefit from the bank, and the depositor does.

Mr. CONANT. That is very true. There are strong arguments for the first lien, but I think they are more theoretical than practical, in view of actual conditions. I think a bill embodying the first lien would arouse antagonism from national banks, because of the very fact that there would be prejudice in the minds of depositors.

Mr. WEEKS. Especially in the country.

Mr. CONANT. Yes. Of course the actual losses the depositors would suffer by it would be very small, because very few of these extreme cases would occur.

The safety fund is simply, in application, the principle of insurance, and there is no more reason for disputing the conclusions based upon banking experience, of the mortality in banks, than there is for disputing the conclusions regarding human life. It might be said that financial fluctuations are more violent and less subject to rule than mortality, but you have to consider that the experience which we rely upon in the case of the national banks covers every sort of vicissitude.

It began at a time of civil war, when the very foundations of the Government were threatened, when the Government paper in which these notes were redeemable was way below par, running from 40 to 80 per cent as the news from the battlefield varied. It went through the panic of 1873 and the long period of depression which followed;

then the minor crisis of 1884 and then the crash of 1893, when so many people were apprehensive that we might go to a silver basis, and the long years of doubt and depression which followed, when our gold reserves were depleted and the Government had to sell \$262,000,000 of bonds to maintain the parity of national currency. All of that experience we had to guide us as to the mortality of the bank note, and if that experience shows that one-fifteenth of 1 per cent is adequate insurance, that it enables the banks, through their mutual insurance association in the form of a guaranty fund, to pay all liens, and to pay them many times over, then we are justified in assuming that there can not conceivably be any loss which the safety fund will not provide for. If that safety fund should prove inadequate, it would be at a time when our whole economic structure was falling to pieces, and Government bonds would be down to 40 again.

If human experience is worth anything in the transactions of life insurance companies, fire insurance companies, and every other sort of human acts, the safety fund is many times more than adequate. In fact, if we were following the ordinary rules of life insurance or any other insurance organization, we would not make the tax for the safety fund more than a quarter or a half of what we are proposing here. We are simply proposing a guaranty which some would consider, in the language of Shakespeare, to be "wasteful and ridiculous excess." Therefore, for that reason, I am opposed to the first lien as wholly unnecessary, like putting a casing of armor plate around a boiler after you have tested its tensile strength and resisting power. It is wholly unnecessary, and we do not do things in commerce in that way.

Mr. GLASS. What would be the sum total of that guaranty fund, assuming that all of the existing banks would avail themselves of the full limit of the credit currency?

Mr. CONANT. I believe the calculation in regard to a currency taxed $2\frac{1}{2}$ per cent is that about \$200,000,000 might be issued. Five per cent of that, which would be \$10,000,000, would come into the safety fund from the beginning. You know a preliminary deposit of 5 per cent is required, and then that is to be added to by the process of taxation; but the original 5 per cent is to be reimbursed as the process of taxation keeps the fund up to a proper figure.

Mr. GLASS. Granting that the fund will be very much more than necessary for ultimate redemption, how would it be in case of panic?

Mr. CONANT. Oh, very much more than that.

Mr. GLASS. If a large number of large banks should fail?

Mr. CONANT. There has never been a case when it would not have been adequate.

The CHAIRMAN. There never has been a time when it exceeded 1 per cent. There was one time in 1873, when a tax of 1 per cent would have been required during one year, so that if we had $2\frac{1}{2}$ per cent, it is two and a half times the greatest loss in any year during the national banking business.

Mr. CONANT. The total number of notes outstanding at the time of failure of national banks has been \$17,000,000, but that has been spread over forty years.

Now, I wanted to say just a word about the proposed emergency currency. In my opinion it would not be an available form of currency, for several reasons of a minor character, in addition to

those general reasons which have been given here. In the first place, what we aim at is not to rescue the country by its heels from a calamity at the last moment, but to avert the calamity. As was well expressed by one of the gentlemen here, we want to keep the country's financial system in good health, and not simply save it by a remedy for typhus fever; but that is a fundamental objection which I think has been sufficiently elucidated. There is, however, a very important physical or mechanical objection which might be named.

If you are to issue an emergency credit currency differing in form from the existing currency, you would find, when the emergency arose, that nobody would be ready for it. Not only would the banks not have their notes printed and their plates made, but you would also find questions of administration would arise. A bank would apply for currency in a certain form and the Comptroller would not have prepared any form to begin with. He would say, "This does not comply with the provisions of law," and would send it back to them. Somebody would raise a legal question whether this, that, or the other thing could or could not be done. It would be so important that the Comptroller would refer it to the Solicitor of the Treasury. He would take it home and keep it for a week or so. At the end of that time he would advise the Comptroller what his opinion was, and the Comptroller would then perhaps authorize the printing of notes or the engraving of plates; but he would find the emergency would be over—the worst of it at least—before this currency could be made available.

Delay of this character happened in 1893, even under the bond-secured system. The fact that the Bureau of Engraving and Printing could not work with sufficient rapidity, even from existing plates, resulted in some \$18,000,000 increased circulation which had been applied for not reaching the banks until some weeks after the acute pressure was over, so that it was practically of no avail for the purpose for which it was asked.

It was suggested by one of the members of the chamber of commerce committee, although I think we failed to make special reference to it in the report, that it would be very desirable if any form of currency was to be issued, or even any additional notes homogeneous in character with the old notes, that there should be at each subtreasury, or at least at the leading subtreasuries, a quantity of notes sufficient for all banks within its circuit, the Comptroller, of course, to divide the country beforehand into districts, to assign each bank to a given subtreasury or a redemption city, and to place in the custody of the assistant treasurer the completed notes, except for the usual signatures and perhaps the seal, for delivery to that bank upon application, in order to avoid the necessity of sending to Washington. That might be modified by keeping them all here, providing all other questions were settled, but even that device would not secure the Comptroller against new legal questions and other difficulties that would arise if you had a currency that was not intended to be availed of and was not availed of until actual crisis was upon the country.

What is aimed at by the bankers' association, I think I am justified in saying, is to keep the interest rates so even, if possible, that a man would not be driven to go over to Canada or to some Canadian bank to make his loans because he can depend upon uniformity of

rates. The whole tendency of a reasonable flexibility in the currency is to establish stability and uniformity, and that is of vital importance from two points of view: First, the general commercial and productive prosperity of the country for the farmer, the manufacturer, the merchant; that he shall know what his money, so called, what his capital is going to cost him, and that he shall be able to count upon it in advance, and not feel that if he is making a contract for the delivery of a bridge to South Africa, for instance, three years from now, and is calculating a profit of 5 per cent, he does not know whether that profit will be wiped out by a rise in the rates for capital. It affects our international relations, as well as our domestic affairs. We are at a distinct disadvantage with respect to other countries. We overcome it with our great resources in other respects, but there is no reason why we should labor under this difficulty simply because of antiquated restrictions upon the banks.

Then there is another point of view, which perhaps does not appeal sympathetically to all outside of New York, that if we seek to make New York the financial center of the world, which people sometimes talk of, we will have to have a different financial condition from what we have now. No city will ever become the financial center of the world where interest rates range from 2 per cent to 36 per cent in one day, or from 2 per cent to 125 per cent in a month or two. The exchanges of the world will not come here. One reason they have gone to London for years is that you can calculate there to a minute fraction what your money is worth. One of the reasons that made England the center for exchanges was her adherence to the gold standard; not necessarily that the gold standard was better than other standards, but it was a fixed standard. A man knew what he would get in gold if he got a draft on London.

The CHAIRMAN. Because it was the only standard.

Mr. CONANT. Yes; a single standard; and with money fluctuating from 2 to 36 per cent, and exchange making somewhat corresponding fluctuations, we never can create a financial center of the world in New York, or any other city of the United States. It is impossible.

I think I have pretty nearly concluded what I have to say. So much was said, and so well said, by the representatives of the bankers' association that I have only taken occasion to emphasize a few fundamental points and certain details without undertaking to make a complete presentation of the subject.

Mr. WEEMS. I want to ask about your call loans in New York. I might premise by saying that I notice a good deal of editorial comment on this proposition, that assumes just simply to sit down on it in advance because it is supposed to be Wall street relief—a bull market relief. That is about what the comment means. I would like to hear from Mr. Conant on that feature.

Mr. CONANT. Well, I think speculation would be discouraged in a sense—discouraged is not quite the right word, but speculation would be less violent; that is the proper way to describe it—under a stable rate of interest than under a fluctuating rate. You can not devise a system which will stop speculation unless you want to pass bourse laws, such as they have in Germany, and those are easily evaded.

You can not say we are devising a system that is injurious to speculation, but I contend we are devising a system which will make speculation less violent and which has benefits for the country as a whole quite apart from the New York market. I do not think this system is any encouragement to speculators, because they make their money, especially the more farsighted, by anticipating the fluctuations under the existing system. It is the man with less foresight and the smaller man who is caught in a trap, as it were, by these fluctuations. If he buys a given stock recommended to him as a sound one, believing it will increase in price by natural accretion of the value of the property, and holds it on a margin and finds when November or December comes along that it is dropping two or three points a day until it has dropped ten points and wiped out his margin, he is the man who suffers—not the long-headed, big speculator who can hustle around and borrow money to cover the margins and who, in fact, anticipates these very fluctuations.

Mr. WEEMS. Why is it that New York City is the only call-money market in the country?

Mr. CONANT. Partly because of the existence of the stock market. In Europe, you know, while there is no call-money market in our sense, there is what corresponds to a call-money market twice a month in London and Paris called "settling day." I believe it is the same interval in both cities, and then money has to be found to settle debts on the stock exchanges. We have chosen to adhere to the system of daily settlements—that is, that a man whose margin is impaired has to replenish it at once, and all settlements through the stock exchange clearing house are made daily instead of monthly.

The CHAIRMAN. Is it not because the final balances of our commercial system reach that place, that it is the call-money market of this country.

Mr. CONANT. Yes; that is the reason. It is the market for surplus capital. That capital is naturally loaned temporarily on call while awaiting permanent investment.

Mr. WEEMS. In what way does that operate to make loans call loans over there? I have heard that frequently stated to be because it is the financial center of the country, but it is rather vague.

Mr. CONANT. The reason why they are call loans instead of time loans I think has been stated. It lies in the fact that the country banks, so called, including all those outside of New York, have money there on call which must be ready for delivery to them on demand. If the New York banks should proceed to loan the money accumulated in the spring on commercial paper, even for three or four months, they might find themselves deficient in cash and with no means of replenishing it through the calls of the country banks.

Mr. WEEMS. Do the banks of New York make so many call loans because it is a business custom for them to loan a great deal of money on stocks that are peculiarly speculative—that is, liable to fluctuate?

Mr. CONANT. No.

Mr. WEEMS. Is that a reason or not?

Mr. CONANT. No; that is not the reason. The call loans are put in that form in order to obtain the money readily. They do not make it a point to call loans which are made on speculative securities unless the securities have gone to pieces. They simply request an increased margin. That does not involve a call of the principal.

The CHAIRMAN. The reason from a business point of view is that all call loans are regarded as cash, are they not?

Mr. CONANT. Yes, certainly; and New York is the only place in the world where they are cash. It is the custom, I believe, if you wish to call a loan, to notify the broker or person to whom the money has been loaned before half past 12 or 1 o'clock, that you desire that loan paid. That gives him a couple of hours, if he needs it, to transfer the loan and bring in the money; and they always do bring in the money. It is not as in the other places, where a man is surprised and grieved, and wants to know why you call him. The brokers and other people who are in the business of taking call money know that they must pay, and they do not offer any excuse why they should not pay, and they do not feel aggrieved. They simply come in and make their payment.

Mr. WEEMS. Does the fact that you have a great metropolitan center, where a man is lost in the crowd, make more of your loans call loans, and because it is more of a cold-blooded business, and less personal favor?

Mr. CONANT. No; I do not think so.

Mr. WEEMS. Would not that operate also, do you not think?

Mr. CONANT. Not to any appreciable extent.

Mr. WEEMS. I am not saying this to the discredit of New York, but I thought it might operate that way.

Mr. CONANT. I should say it was a question of supply and demand. If there is a sufficient commercial demand, the money would be loaned for commercial purposes.

Mr. WEEMS. A man out our way could not make a call loan. They would not want to close in on him. You have an atmosphere over there that is such that a man expects to be called.

Mr. CONANT. Yes; but a man who does not want to be called does not usually get that form of loan. There are loans that are nominally on call, but it is understood they are not to be called. The man who objects to being called, however, would not come in and negotiate a large call loan. He certainly would not under any circumstances without explaining that he did not wish to be called.

Mr. WEEMS. About what proportion, if you know, of the loans of the banks of New York are call loans and what proportion are time loans?

Mr. HAYES. The Comptroller's report gives that.

Mr. CONANT. I can tell you in a moment. The Comptroller's report every year gives some figures. There are several classifications, but for New York the loans on demand secured by stocks are \$274,142,000 in national banks. For the country at large they are \$575,000,000, so that nominally, you see, there is a little more in the country at large than in New York; but practically, I suppose they are not really call loans in the sense in which that term is used in New York.

Mr. HAYES. Is it not also true that a number of country banks may have loans in New York that they report in the country?

Mr. CONANT. But they are not included in these figures.

The CHAIRMAN. There is one question I want to ask—as to the truth of the statement that there are no call loans except in New York. As a matter of fact, do not all the reserve cities make call loans?

Mr. CONANT. Yes; more or less.

The CHAIRMAN. Is it not a fact that the reason we see it in New York is because that is where they all bring out in the end?

Mr. CONANT. Yes. I am not a national banker, so I am not as familiar with the details as some other gentlemen who have been here, but undoubtedly in Chicago and Pittsburg there are call loans, and it is understood they are to be called.

Mr. HAYES. They are called, too.

Mr. CONANT. Oh, yes. The difference between New York and the country is \$300,000,000. I do not think the whole of that amount is true call loans. Of course what it is important to discuss is the true call loans, which are promptly paid without complaint when called.

Mr. WEEMS. Have you there the number of time loans by New York banks of the same date?

Mr. CONANT. It is not in this sheet. It is in the Comptroller's report, however. I will insert it in the evidence, if you wish.

Mr. WEEMS. What proportion of these call-money loans is made for what we call commercial purposes, the ordinary purposes of business, and what proportion is made by people who are simply dabbling in the stock market?

Mr. CONANT. Well, I do not subdivide that in that way. You say "dabbling in the stock market." There are some call loans that might be quite legitimate even from the standpoint of those who criticise speculation on margins. For instance, a railroad might wish to borrow \$1,000,000, and deposit some securities which it had at hand, and the loan might be subject to call, and it would so appear in this table. Yet it would be quite a legitimate loan for those operating purposes. In that case they would have, probably, an arrangement by which they should not be called without notice, but still it would appear in this classification of call loans. So it would be only a question as to what proportion are commercial loans and what are purely speculative. Of course only a small proportion, probably, of the amount named here as loans on stocks subject to call are commercial loans. They are not commercial loans in form, anyway, because they are not secured on commercial paper, and yet there are, no doubt, cases in which merchants, manufacturers, and others pledge stock to borrow money instead of pledging their individual notes. In fact, that practice has grown greatly since the formation of the large industrial corporations.

It used to be the practice for small corporations and individual firms to borrow money on their notes, which constituted in form a loan on commercial paper. Now that they have such strong resources they do not, in the first place, appear so often in the market as borrowers as they formerly did. In the second place, if they do appear, they are apt to bring their securities, so that they appear under these classifications, and these classifications may show an increase without indicating necessarily an increase in what you would call speculative loans, where people are buying and selling securities. There may be no dealing in securities at all on the stock exchange. It may be the mere hypothecation of securities in order to get the money.

Mr. WEEMS. I intend to vote for this bill, but I desire to bring out something on that subject. There is a certain vague mass of prejudice and possible ignorance in the country in reference to it, and I see it reflected in published statements. Let me ask you this question: Is it the effect of the fall drain from New York City for

southern and western currency, felt on the business needs of a community as distinguished from stock-market needs, that has aroused the interest in that subject?

Mr. CONANT. Very largely, and especially so among the merchants. Of course I would not undertake to say that the stock-market situation has not been an important factor, but there should not arise the impression that it is the speculators or dealers in stocks who are affected chiefly, because the rates for mercantile loans have risen very sharply, and it has been very difficult to get accommodation by merchants.

I think the rates recently asked for time money—time money includes some of the brokers also, but also mercantile paper—have been as high as 8 and even 9 per cent for, say, six months, and personally, although I am not connected with a national bank, I have had one or two people call on me and desire to make commercial loans on good property, and I have inquired of the national bank with which my associations are the closest if they could do anything for them. They said no; they had loaned it all out, and they could not. That must inevitably be the situation. You see, the scarcity of capital and the drain from the country upon the legal-tender money in the New York bank reserves must curtail their power to make mercantile loans as well as speculative loans.

Mr. WEEMS. Let me ask you if the great effect this drain has in sending up the call-money rates is not purely due to the fact that your banks make an honest effort to take care of the legitimate borrower, the business man.

Mr. CONANT. Yes; there is no doubt they would grant favors to their regular customers. Of course, upon an outsider, a newcomer, they would look coldly if they did not have the money to lend him; but they would endeavor to take care of their mercantile customer first.

The CHAIRMAN. Would you not go further than that and say that they would sacrifice all the call loans?

Mr. CONANT. Yes; that is what call loans are for, to call when they need the money.

The CHAIRMAN. To protect their regular customers?

Mr. CONANT. Yes.

Mr. WEEMS. I want to add a statement rather than a question. Ink is cheap out in my section, and it is easy to print something about the Wall street crowd. I do not take any special stock in it myself.

Mr. WEEKS. Are not these excessive rates of call loans in New York very largely due to the fact that the mercantile customers of the banks have come in and asked for money which should be loaned them, and the banks call the brokers in order to satisfy the demands of their customers?

Mr. CONANT. Yes; I think that is the case.

Mr. WEEKS. And that makes the broker hustle and pay high rates?

Mr. CONANT. Yes; that is the natural operation of the matter. I am not personally in contact with the loans sufficiently to speak from personal experience, but undoubtedly that is the general policy. That is why they have call loans, in order to get the money when they want it to protect their regular customers, and also for meeting demands from their country clients.

Mr. McMORRAN. Is it not a matter of fact, Mr. Conant, that during

all this extreme stringency of money the national banks of New York City have taken care of their customers at the current rate of interest, not to exceed 6 per cent?

Mr. CONANT. I could not answer that positively. I think it is true, generally, but I have not the information to say absolutely.

The CHAIRMAN. If there is no other question to be propounded to Mr. Conant the hearing will be closed.

The committee thereupon adjourned.

COMMITTEE ON BANKING AND CURRENCY,
HOUSE OF REPRESENTATIVES,
Washington, D. C., December 14, 1906.

The committee met this day at 10 o'clock a. m., Hon. George W. Prince in the chair.

**STATEMENT OF HON. LESLIE M. SHAW, SECRETARY OF THE
TREASURY.**

Mr. PRINCE (acting chairman). The Committee on Banking and Currency by unanimous vote adopted the motion made by Mr. Weeks, of Massachusetts, that the Secretary of the Treasury and the Comptroller of the Currency be invited to appear before this committee and to give to it and to the country the benefit of their views relative to the plan proposed by a committee of the American Bankers' Association, as to the feasibility of enacting into a law a measure having for its purpose an elastic credit currency. The Secretary has kindly come before this committee, and we would like to hear him upon that subject. Now, Mr. Secretary.

Secretary SHAW. Mr. Chairman and gentlemen of the committee, I am thoroughly convinced of the imperative need of currency legislation that will add an element of elasticity to our system. I am also convinced that if anything is done, if any legislation is accomplished, it will be the result of compromise. I realize that most of the men who have given much thought to the subject have become fixed in their opinions, and they are about the last men in the world to consent to compromise. To them, as a rule, their plan is the one and only plan that will have the desired effect.

I have for a number of years urged the advisability of permitting the banks to issue quite a large volume of what is sometimes called uncovered currency—credit currency—taxed at a high rate, believing that that tax will force it back. Some say that what I have urged is too much, more than is necessary. I am not fearful of the large amount. No more would be issued than could be used, and when it is needed it is needed in a volume. It is not needed a little from every one of 6,000 banks. They would not all respond; they would not all understand it; so that 25 per cent of the capital stock of the banks—\$800,000,000 being approximately the aggregate capital of national banks—25 per cent of it, \$200,000,000, to be brought into existence when needed, would be, I think, none too much.

To illustrate, I have recently deposited \$20,000,000. That twenty millions of lawful money may be the basis of eighty millions of loans. The committee of the American Bankers' Association speak of their

proposed credit currency as loans, and they propose to keep a reserve against it, and then they have only provided for a possible two hundred millions. When I deposit twenty millions I make it possible for the banks to loan eighty millions, and they all tell me that is but a teaspoonful.

I am not afraid of a possible two hundred millions. I would not be afraid of a possible five hundred millions, because no bank will keep it out and pay 5 or 6 per cent for it when it is not needed. They will retire it.

I would not base this issue, however, solely upon the capital of the banks. I would base it in some way on the amount of bond-secured circulation that it kept out. In that respect I like the thought of the report of the American Bankers' committee, that the banks should keep out a certain volume of bond-secured circulation before they are allowed to issue any credit currency.

Let me carry this plan a little further first: I would take from the present bank notes the statement that "this note is secured by United States bonds deposited with the Treasurer of the United States." This would avoid the necessity of issuing a new kind of currency. When we are at a pinch; when money is needed; when people are nervous, if there were suddenly flung out a new kind of currency it would prove a danger signal. I believe that nothing would be more likely to result in withdrawals from New York City than the knowledge that the national banks were issuing a new kind of circulation.

I am afraid it would accentuate the ever-present danger that the interior banks would withdraw their money from the cities. If interior banks should withdraw their money from New York now we would have the worst panic that the world has ever seen, just the same as we would have the worst panic in your town if the depositors should withdraw all their money from the banks in your town. Such a course would raise mischief in any town, and it would raise mischief throughout the country if the interior banks should withdraw their money from the banking centers of the country. Hundreds of millions—no one knows how much—are loaned from the interior. I saw, just a few days ago, a telegram from one of the largest business houses of the West to one of the largest banks in New York, "Can you loan for us, at current rates—a certain amount of money—several hundred thousand dollars?" That was a business house.

The chances are that it had gone to one bank in the city where it resided or did business and said to the local bank, "We must have some money. We want a quarter of a million of money." The bank would say: "All right. We must take care of our customers. You can have it at 5 per cent." Then they telegraph to New York and ask if they can loan that money at 30 per cent. This same banker told me of an instance where a man got his lines crossed and borrowed from them and then asked them to loan it for him at a high rate. [Laughter.] Let that same firm get frightened and they will call for that money and take it home. All of those things complicate the financial situation.

Another criticism that has been made of heavily taxed currency is that it would be difficult to collect for retirement. I think that

criticism arises from a failure to analyze the situation. Do I make it clear? You have a bank, and you are loaned to the limit. There is still demand for money; you have the right to issue, subject to the approval of the Comptroller, \$25,000 of credit currency, and you are taxed 5 per cent or 6 per cent during the time it remains out. It is identical in form and appearance with the notes that you have out already, and can not be separated. No one knows that you have issued this except the Comptroller and yourself. The Government guarantees it. There is no alarm, and in five days, because many other banks have done the same thing, the pinch is over.

If it were possible now, I suppose there would be now issued throughout the country a hundred million inside of forty-eight hours—if it were possible; and by the 15th of January money will probably be easy. Then you want to retire and stop the tax. How will you do it? You will deposit \$25,000 with the subtreasury, and against that deposit will be charged every note that comes in against you. When you have deposited it with the subtreasury you have contracted the currency as much as you expanded it by the issue. And you have stopped the tax. Now, whether these notes come back to-day or a week from to-day it does not matter. As these notes come back and are charged against your account an equal volume of that money goes out. You have made the contraction and stopped the tax, and the rest is just bookkeeping.

The expansion occurs when you issue the notes. The contraction takes place when you deposit an equal amount. Some say this is dangerous. Dangerous—why? You will never part with a note without an asset. You have \$25,000 of new money in your vault. A man comes in and wants to borrow it. If you get a dollar in good assets every time you pay out a dollar there will be no more danger than there is when you issue a certified check or a certificate of deposit. You issue your check to me, payable to order; I send it to some city to pay my debt, and it is indorsed a dozen times. Finally, it comes around for payment. No one complains at that. Why may I not issue a note on a little better paper, payable to bearer, that anybody will take? This plan would, I think, afford a great measure of relief. It would be a safety valve. It would be a buffer.

The best illustration I can make is to refer to an experience we have all had probably of leading a horse behind the buggy. When we let him out the whole length of the halter it does not matter how long the halter is whenever you go over a rough place you feel the knot. It is wise to have a little slack rope. We have felt the knot several times in the last five years. If you have a little slack, I do not care how severe the spring, whether it is 5 or 6 per cent, it will go far toward saving a catastrophe. We are now carrying our wonderful business out at the very extreme length of our wonderfully long tether. Is not that right?

Mr. JAMES. Yes.

Secretary SHAW. And now for six months we have felt that knot and held on like grim death, and the only possible elasticity we have had is what the Secretary of the Treasury has been able to work out.

The report of the committee is, to my mind, defective, the same as my suggestions are, in the opinion of the committee—defective. I do not want to take the position of a doctrinaire. I want you to think it out for yourselves. I said in my report, in the last paragraph of

it, that it was the duty of the administrative department to point out needs and for Congress to provide legislation. I have told you somewhat of the needs. Now I am going to suggest what I think are the weaknesses in the plan of the bankers' committee.

I think the plan reported by the committee had its seed thought in the Canadian system, which, in my judgment, is excellent.

It works admirably. There are some reasons why it works better in Canada than it would work in this country. In Canada all bank currency is issued by about 30 banks—between 30 and 40 banking institutions. Under our system it would be issued by 6,000 banks. In Canada these large banks have a large number of branches. Presumably these banks have thought out every detail. Our bankers, as a rule, are not altogether thoughtful. We have banks now that have deposits of Government money secured by consuls, and circulation secured by 4 per cent bonds. If they asked it, we would change and put the consuls against the circulation and the 4 per cent bonds against deposits. It would pay them one-half per cent on their circulation, but they have not thought it out. [Laughter.] There is any amount of this thoughtlessness. It is with the banker just like it is with the farmer; there are a great many things that he has not thought about which are appropriate to his business. I do not think there would be the same cooperation and prudence exercised by the aggregate of 6,000 banks as there is by 30 central banks with a large number of branches.

Do not understand me as being in favor of branch banks. I am dead against them. But you would not get that cooperation here as in Canada. This bank currency is practically all the paper money there is in Canada except the small money and very large bills. Practically the entire volume of paper money in use in Canada is the bank notes controlled by 30 banks with a large number of branches. There are no State banks or national banks. They have, therefore, a coordinated banking system, where cooperation between central banks is easy, and where cooperation between the central bank and its branches is certain. There certainly would be much more likelihood of 30 central banks cooperating than there would be of 30 banks in New York City cooperating. We can get no cooperation between the banks of New York City.

If we had a panic, they would cooperate, they would get together, and the clearing house committee would decide on something, and they would all obey. But until that panic comes there is no cooperation between them.

Now, one other reason why you get more elasticity in a given volume in Canada than here. I have already referred to it, but have not enlarged upon it as I desire. The one other reason is the want of State banks and savings banks and trust companies. Now, the logic of the Canadian system is perfect, but there are a great many things where the logic is perfect that do not work to the limit of this logic. Theoretically it is thoroughly correct that a bank when money is scarce will find it of advantage to issue its own paper and retire its competitors' paper, and they will run this paper in when there is a little idle money—in easy times—wanting to get out its own; and they will shove in the other fellows' paper very rapidly; but the bank that has no issue of money itself will not have that inducement to send it in.

The State bank finding in its vaults some of my paper which is just as good for its reserve as a gold certificate does not find it worth while to bundle it up and take it over to the express office and send it in, although it is sent in at my expense. It is just as good to him as any other, so that I think the volume of money that finds its way into trust companies and savings banks and State banks, which largely outnumber our national banks, will stay there, for there is no inducement to rush that in for redemption.

Now, in Canada, you have noticed here, the maximum of elasticity varies from 25 to 37 per cent, but the average is about 30 per cent. I think we would do exceedingly well, taking into account our want of cooperation and the number of banks that would not realize the difference whether they were using their own paper or somebody else's, and taking into account the State and savings banks and trust companies that would afford a lodging place for this paper—we would do very well indeed, I say, if we would get 10 per cent contraction. I said before the bankers' committee 15 per cent, but I believe that 10 per cent would be the movement that we could expect. We would do well if we got 10 per cent elasticity out of it.

MR. GILLESPIE. Do you mean by that that if these two hundred millions were issued you would only get back in a given time perhaps twenty millions?

SECRETARY SHAW. Yes. You never would get out the full two hundred millions. We would do very well to get out one hundred and fifty millions, even in pinching times, so that our maximum would be perhaps one hundred and fifty millions. But suppose they did issue two hundred millions. I am assuming that some banks would not issue their maximum. They would not order their extra plate, or something of that kind. I think most of the committee expect about one hundred and fifty millions out of a possible two hundred millions. I do not think you would get much more than 10 per cent, or possibly 15, contraction.

It would make an aggregate of twenty-two and one-half millions, not lawful money, but of credit currency, the equivalent of one-fourth of that in gold; so that when the Secretary of the Treasury withdraws in the summer five millions of money from the banks he contracts credits as much as would result from 15 per cent of the proposed credit currency. I do not think it is worth the trouble. I want the contraction, but I want more than I think is possible out of this. I think we are deceiving ourselves and expecting too great things from it, when we would only get a bagatelle. The Secretary of the Treasury overnight, without anyone knowing anything about it at all, can contract credit more than that. I think the committee's plan wholly inadequate as respects contraction.

MR. GILLESPIE. We compare that elasticity with our volume of currency. Ought not that to be compared with our deposit currency, because in one form that is a deposit currency? We ought not to compare that with the volume of money in circulation in this country.

SECRETARY SHAW. The committee itself speaks of it as credit currency.

MR. WALDO. But that is all the currency they have.

SECRETARY SHAW. Yes; that is all there is. We have an excellent system, using our bonds, and nobody will supplant that. But it has

its weaknesses. There are but very few blessings in the world that have not their corresponding evils. There are few unmixed blessings in this life.

Mr. WALDO. The bankers said that the amount of elasticity we required is about two hundred millions. Now, if this plan that is now suggested will only give ten or fifteen, or at the most twenty-two, millions, it will not answer the purposes they want at all.

Secretary SHAW. In that I absolutely agree. I do not think it is adequate, and I think it involves altogether too much machinery to get a small contraction.

Let me suggest what their plan involves, because they propose to put into circulation a new kind of money, distinct from anything in existence. Therefore it requires new plates for 6,000 banks. If they were to issue fives and tens, two denominations of money, it would take 12,000 new plates. It would involve printing in the summer time a volume of money for each one of the banks on these two plates. It would involve printing 12,000 kinds of money.

You would have to enlarge the Bureau of Engraving and Printing very materially. You would have to establish, as I say, redemption agencies, and put in a large number of clerks to work out these redemptions at these different places. So that, if you will pardon me, I would at least put this amendment to it if I were going to adopt it: Take out of the present note the statement that it is secured by a deposit of bonds and insert in place of that, "This note is guaranteed by the Government of the United States."

Mr. WEEKS. Would it not be practicable, Mr. Secretary, to make these notes of one denomination only, say \$5, which would reduce by one-half the amount of the printing?

Secretary SHAW. That would reduce the printing to one-half. I would not quarrel with that.

Mr. JAMES. Which note do you refer to?

Secretary SHAW. The present note and the new note. The present note is ultimately guaranteed by the Government of the United States. The Government guarantees the bonds deposited as security, and the bond guarantees the note, and it does not change it any to have the Government guarantee the note directly and in express terms.

Next, every man who studies the question says that the tax will several fold pay the risk. Now, if that be true, and it is true, then why discredit our own judgment by saying to the people, "It is perfectly good. I think you had better take that." If it is good, say so, and let the Government stand back of it.

If our estimate is wrong, and if there should be now and then a loss, the people collectively, the aggregate of the people, can stand that loss much better than an individual can stand it. We are passing a note around this table in the course of our business as rapidly as we can. It is a credit note. Everybody accepts it. The bank issuing the note fails. We all laugh and say: "Ha, it is on you." When we all agree to use it, if the bank fails we should jointly stand the loss and not the man who happens to hold it at the time the bank of issue fails.

Mr. WEEKS. Mr. Secretary, if we had a war with England, for instance, and our 2 per cent bonds decreased in price to 80, do you mean to say that the Government would make up the difference of the value of the notes secured by those bonds and the par value of the bonds?

Secretary SHAW. No; but it would be a great deal better to do it than discredit all these notes and to have the people worry about them and refuse to take them. They are not guaranteed now in express terms.

Mr. SHARTEL. Mr. Secretary, but the Government owns this bond.

Secretary SHAW. If you wait until the bond matures the Government has to pay it.

Mr. SHARTEL. The Government has to pay it finally.

Secretary SHAW. And the Government is now ahead many millions, aside from the notes that have been lost. We will never know how much profit the Government receives on the national-bank notes, because every note that is lost or burned represents so much profit.

Mr. GILLESPIE. Is there an estimate of the amount?

Secretary SHAW. Oh, no; but the profit is away up in the millions.

Mr. JAMES. Instead of having people look solely to the bonds for the redemption of these notes, you would have them look to the Government itself?

Secretary SHAW. There is a bad flavor in the mouth of even the third generation that has come down from the old wild-cat money of 1857, and you can not get it out. The boys have heard their fathers and grandfathers tell about it, and every time you speak of credit currency, up those old fellows will jump and tell about the "wild-cat" and "red-dog" and "blue-pup" money. [Laughter.] The only thing the people now look at when they take money is whether it is genuine, and they scarcely look at it for that, even. They depend upon the Treasury Department to stop counterfeiting, so that the average cashier in a bank, I think, seldom stops to see whether the money is counterfeit or not.

He takes it, and he does not know whether he is taking national-bank currency, or greenbacks, or gold or silver certificates, and in that respect it is very gratifying. I do not think we ought to ask the people to take anything concerning which there is a suspicion.

Mr. WALDO. That, Mr. Shaw, is the only thing, before I heard your objection, that occurred to me as an objection to this currency; that while I believe it would be absolutely good, it seems to me there would be that suspicion lurking in the mind of the public as to a note that purported to be a credit note of a bank and not a note guaranteed by the United States.

Secretary SHAW. So I would say accept this tax as a premium and let the Government insure it. Any guaranty company would underwrite it for a quarter of the tax. That part is easy.

Take the next step. Then you have all our national-bank notes alike, and thus subject the entire volume to the element of elasticity. That is the strength of this argument. Now, under their plan, the only notes that would be sent in for redemption to work the elasticity would be that proportion of the proposed issue of notes that dropped into national banks; but if they were all alike, then our entire volume of six hundred millions of national-bank notes now in circulation plus the proposed one hundred and fifty millions of bank notes, making seven hundred and fifty millions, would be made elastic.

The first argument against this was that the tax would be difficult to assess. Not at all. Currency equal to the par of the bonds would be taxed $1\frac{1}{2}$ per cent; 25 per cent in excess of the par value of the

bonds would be taxed at 2½ per cent; all in excess of 125 per cent of the bonds would be taxed at 5 per cent. So all you have to do in assessing the tax is to ascertain how many bonds the bank has deposited, how much circulation, and levy your tax accordingly.

Then, whenever a bank wants to get out one of its own notes and has one of yours in its vaults it will send yours in, regardless of the bonds you have out. It will shove national bank notes back as fast as it can in order that it may issue its own at 2½ per cent. If we then secure 10 per cent elasticity, you will get seventy-five millions contraction instead of fifteen millions. If the committee's expectation of 25 per cent of contraction is realized, then you will get over one hundred and eighty millions. The larger the elasticity the better.

That will take care of itself. No one worries about there being too much contraction. The danger is that there will not be enough.

Mr. HAMILTON. The idea of changing the plate met with favor. They should be as near alike as possible?

Secretary SHAW. Oh, yes.

Mr. WEEMS. Mr. Secretary, I would like to ask you if it would not be necessary in that case to repeal the prohibition against retiring?

Secretary SHAW. No; that prohibition is quite generally misunderstood. That limitation is not against the redemption of notes, but against their retirement by a deposit of money. For instance, I can send in as many of the First National Bank notes as I please, every dollar of its issue, for that matter.

Mr. WEEMS. That is the retirement as distinguished from a redemption?

Secretary SHAW. Yes; and I want to speak on that subject a moment. That provision, I think, should be amended so as to allow, with the consent of the Secretary of the Treasury, an unlimited retirement. I do not think the bridle should be taken off entirely, and I will tell you why. When I was selling the Panama bonds this year and was trying to stimulate the price, some banks started in to reduce the price so that the Government bonds would sell lower; and they started to retire their circulation and put their bonds on the market to pound the price down while I was making deposits to crowd the price up, and we had a very nice chase.

They had a limit of three millions a month, and I had no limit, and I got away with them, and I ran the price up over 1 per cent. [Laughter.] But they would have whipped me and bought those bonds probably below one-dollar-two, instead of one-dollar-four, without that limitation.

Bankers have written, saying, "There is a great demand for money now, and we would like to have a Government deposit." I designated them and gave them fifty thousand. Then they retired circulation so as to use their bonds as security for the deposits. All this because money is so scarce. [Laughter.] So I think there ought to be discretion allowed to the Secretary of the Treasury. No one would care, during the summer, how much was retired.

Mr. SHARTEL. There is one question, Mr. Secretary, that I would like to ask you, and that is in regard to the amount of tax on this circulation. All of the bankers who have appeared before this committee have argued in behalf of a 2½ per cent tax.

Secretary SHAW. If you should adopt this recommendation making the notes uniform, so as to inject the element of elasticity into the entire volume of national bank notes, I think $2\frac{1}{2}$ per cent tax is enough, if you require them to carry reserve against it. I am not clear in my own mind as to what would be the wisest. I think the country would not look kindly upon the Government allowing the banks to issue currency taxed at $2\frac{1}{2}$ to be loaned to them at 5 or 7. I think that a demagogue, if one should ever develop in this country [laughter], would be able to go out and say that Congress had permitted the banks to issue two hundred millions of money at $2\frac{1}{2}$ per cent, which is \$5,000,000 a year, and to loan it to you at 5 per cent, which is ten millions a year—

Mr. JAMES. Usually at 8 per cent.

Secretary SHAW. Yes; but I will say at 5 per cent, which gives them a profit, say, of $2\frac{1}{2}$ or 3 or 4 per cent. He would say, "Congress has given the banks an opportunity to make out of you \$8,000,000 a year." You and I following that demagogue, he making that statement in from thirty seconds to one minute, if we had a half hour with each citizen we could probably convince him that the reserve would increase the cost, so that the banks did not have a profit of more than about $1\frac{1}{2}$ per cent.

I do not like the idea of letting down the reserve that there is now. It is none too high. I think the country would take more kindly to the proposition, however, if instead of taxing it $2\frac{1}{2}$ direct with the reserve you just added the equivalent in a higher tax. It would then show on its face what the real charge against its maintenance was.

Mr. HAYES. Would not safe banking require the keeping of this reserve now? That is a credit against the bank.

Mr. SHARTEL. The purpose, as I understand, of this proposed bill is to increase the currency and increase the elasticity. Do you think $2\frac{1}{2}$ per cent would be sufficient to accomplish this elasticity?

Secretary SHAW. You must not confound two distinct theories on which elasticity is based. The elasticity expected of heavily taxed emergency currency is caused by the banks finding it to their advantage to stop paying the tax, and they voluntarily take their cash and deposit it in the subtreasury for the purpose of stopping the tax. That is the theory on which the heavily taxed emergency currency is based.

The committee's recommendation, so far as the first 25 per cent issue is concerned, is not based on that theory at all. This is based upon the theory that each bank will want to issue its own because it gets interest on it, and therefore will want to get the other fellows' out of the way, so as to make room for its own. The tax does not accelerate the elasticity in this. It is the demand and ease of redemption.

Just count this currency as checks. If I can issue out my checks—I get, say, 5 per cent interest on it—I will never put out one of your checks if it comes into my bank. I will send yours across the street and say I want the cash on that.

Do you get the theory of that? You must not confound the two. The one idea is bottomed on the proposition that the bank will hurry the other man's currency in, while the elasticity of the emergency currency, heavily taxed, is based upon the burden of maintaining it. One is bottomed on the advantage to be gained by its maintenance

and the other upon the burden imposed by its maintenance. Is not that it?

Mr. HAMILTON. Yes; but you can not get your credit anyhow unless there is something back of that issue. If you do, it is something like an overdrawing.

Secretary SHAW. Of course I can not do that unless I have an asset for it.

Mr. HAMILTON. The credit currency has got to represent an actual credit.

Mr. SHARTEL. You spoke a while ago, Mr. Secretary, of the great prosperity of the country and of the immense demand for the currency. Do you not think that the issue of this money could be absorbed readily by the country to the fullest extent, and that being in demand it would not be retired? In other words, all the banks would put out all they could. There would be no object in sending in other banks' notes because they would have their full limit out and could not issue any more, so that it would result in more money for the use of the country steadily.

Secretary SHAW. If I got your thought, I think it has much force, and I think my friend here, a member of the committee present, would quite agree with me, that the only reason why there is so much contraction in Canada during the summer is that they have a volume of currency beyond their needs. If this proposed two hundred millions only meets the legitimate needs in the summer, there will be no elasticity, because the bank will not send it in for redemption while it can keep out its own maximum. The only way to have elasticity is to have so large a volume of it that it is not needed in the summer, and I do not believe that this proposed issue is adequate to secure the element of elasticity.

Mr. POWERS. Mr. Secretary, I would like to ask a question.

Mr. WEEKS. Relative to this retirement, Mr. Secretary, is it not the recommendation or suggestion of the bankers' committee that the amount the bank is to be taxed upon is based upon a six months' average, the amount outstanding at any banker's?

Secretary SHAW. Probably.

Mr. WEEKS. Now, if I understood you correctly, you suggested that a bank, to retire all of its currency of this character, can take the money to the redemption point and deposit it, which will stop the tax on the circulation it has outstanding?

Secretary SHAW. Yes.

Mr. WEEKS. That currency must be outstanding for a long time. Is anybody going to pay the Government interest on that money outstanding, even though it has been deposited?

Secretary SHAW. No; and does the Government want any interest?

Mr. WEEKS. The currency is in circulation.

Secretary SHAW. But the contraction has been effected by the deposit. You have \$25,000 of circulation out, scattered throughout the country. There has been an expansion, there has been inflation to the extent of \$25,000; and instead of paying the tax you make a deposit of money and thereby you have contracted the currency as much as you expanded it, and you have stopped the tax; and when the notes come in, say five years from now, it is charged against the deposit.

Mr. WEEKS. Then the amount which the bank would be charged upon would be the amount which it had outstanding up to the time it redeemed it?

Secretary SHAW. Yes; and mind you, I do not think that six months' average ought to be the tax; it certainly ought not to be the tax on this 5 per cent. Your last 12½ per cent is purely an emergency currency.

Mr. HAMILTON. That should be taxed 5 per cent if it stayed out a day or five days. It should be taxed for the time it stayed out?

Secretary SHAW. Yes.

Mr. HAMILTON. Which is assuming that you would figure on an average, the same as you would on other things, and settle every six months.

Mr. WEEKS. Suppose a bank having authority to issue \$200,000 of this credit currency issued all of it and in three days decided that it wanted to retire it all and deposited \$200,000 of legal money for that purpose; thirty days after, the emergency arises again, and it wishes once more to issue its credit currency, but all the original issue has not been retired; perhaps \$100,000 is still outstanding?

Secretary SHAW. That does not matter at all. You reissue just as often as you want to.

Mr. WEEKS. Would not it resolve itself into this condition: That all the legal money of the country would be locked up, and we would have nothing but credit?

Secretary SHAW. If that be true, before it all got locked up the banks would quit depositing it—that is, if lawful money was getting scarce the banks would not deposit any against its circulation.

Mr. HAMILTON. He would deposit lawful money to redeem it?

Secretary SHAW. He would not start to redeem it when legal money is scarce. If lawful money is scarce, rates will be high. So that the very thing that you fear is the thing that is your protection. They will never deposit until their reserve is excessive. When their reserve is excessive they will make their deposit. If these aggregate deposits contract the reserve, then of course they will deposit no more.

Mr. WEEKS. It would be very probable that there would be more than two hundred millions of credit circulation under this, would it not?

Secretary SHAW. No.

Mr. WEEKS. But it might be. This money is going into the hands of the people, and going to be carried around in their pockets to a greater or less extent?

Secretary SHAW. Yes.

Mr. WEEKS. Suppose there has been a total issue of \$200,000,000, and then it is retired as far as possible, but \$25,000,000 remains outstanding, and then a severe emergency arises and every bank puts out its emergency amount of \$200,000,000; that would be \$225,000,000?

Secretary SHAW. Yes; the same as it would be if you would take the bridle off and allow them to retire more than \$3,000,000 a month. Bankers very frequently retire by making a deposit and then reissue again. There are two or three banks that watch the price of bonds very carefully and take advantage of the price of bonds to the extent of \$3,000,000 of their circulation. If the price of bonds is high, they will retire and sell their bonds. If the price runs low, they issue quite a volume more; that is to say, if money is very plenty, they issue

more; if it is scarce, they retire. There is a little elasticity in our circulation, but not much; but it works the wrong way, what there is of it.

Mr. POWERS. Mr. Secretary, going back to this method of retiring the credit currency, which was based, as you say, upon an analogy of the working of the Canadian banking system. If I understand you aright, you have stated what I have stated to the various members on the committee, that the conditions of banking here, owing to the large number of banks and the multiplicity of banks, do not place that system of retiring on all fours with the condition in Canada, and therefore we would not get very much elasticity if we relied upon the principle which the banking committee have appealed to, to effect a retirement of the currency. But there can not be really a permanent addition to the present currency, and if we are to have a rapid retirement, we are to rely upon a tax sufficiently large to compel that retirement. Is that your view?

Secretary SHAW. Yes. I would not be afraid, however, of an inflation of one hundred and fifty millions. We have expanded our money at the rate of one hundred and fifty millions a year for five years.

Mr. POWERS. Will we not keep on expanding?

Secretary SHAW. Yes. I am not afraid of that, because I think our business has increased even more rapidly than our money.

Let me carry that through. I would not be afraid of the expansion of one hundred and fifty millions if you would allow the element of elasticity to attach to the entire volume of national-bank circulation by making it all alike. I say this, not unmindful of the fact that if this one hundred and fifty millions should be picked up by business, so that in July it was all in use, then there would not be any contraction worth mentioning. It would be a permanent expansion to that extent, the same as it is now.

I think the committee would say that if it was only the possible issue of ten millions it would certainly be employed in the summer as well as in the winter, and in order to work elasticity I think you will agree with me [addressing Mr. Hamilton] that the expansion during the winter must be large enough to exceed the needs of summer, so that if \$150,000,000 does not exceed the needs of summer, there will be no elasticity in it. The principle of the Canadian system applies only when there is practically no limit to the expansion.

Mr. HAMILTON. The amount and volume of the Canadian circulation has increased from year to year, according to the development of the country.

Secretary SHAW. In other words, you have provided here in your report for a possible one hundred and fifty millions. They have no limit to theirs, except the capital of the banks.

Mr. HAMILTON. If, however, the demands of the country require \$150,000,000 in the summer season, is there not necessity for that issue as a permanent issue?

Secretary SHAW. I would say yes and no to that. I should say the fact that it should be employed at that price does not necessarily show that the legitimate needs of business require it. You and I will agree that excessive money is a dangerous thing, and the fact that we have our steam up to the point where we would employ

\$150,000,000 in summer and put it into something rather than let it be retired would not prove actual need.

Mr. POWERS. I do not know that I fully comprehend this measure, but, as I understand it, the object is to issue a currency that will be available during the time when there shall be a large demand which shall not intensify the era of speculation when there is not that demand by being contracted?

Secretary SHAW. Yes.

Mr. POWERS. Now, it seems to me that the efficacy of the method devised for the contraction by the bankers' committee is at least very doubtful, and we must, if such a currency is issued, place upon it a tax large enough so that it will be an object to the bankers to redeem, in the method you describe, by making deposits. Otherwise we will simply increase the permanent amount of currency, which is not wanted, and possibly intensify the era of speculation.

Secretary SHAW. I think there is an element of danger in it. One of the principal bankers of the country, who was very much in favor of the report of the committee when we were talking about it the other day, said to me: "If your theory is right, and the element of elasticity will be no greater in the \$200,000,000 than it would be if applied to the aggregate, then it would not be very helpful, but dangerous."

Evidently the contraction will only apply to notes that find their way into national banks. Assuming that the country accepts the proposed issue as kindly as they take our currency now, then every dollar of this two hundred millions which is carried in the pockets of the people is not on its way to redemption. Every dollar that finds its way to the trust company and savings bank is not on its way for redemption, and you get only the same per cent of elasticity that you would if the entire volume were subject to the element of elasticity.

So I have to emphasize the idea—and I can not over emphasize it—that if you are going to do this the whole volume should be made elastic.

Mr. POWERS. They do not purpose to make our whole volume elastic in this bill?

Secretary SHAW. And in that respect I would modify it, most certainly.

Mr. POWERS. Their only purpose is to give a currency to be used in an emergency?

Secretary SHAW. No; they propose two things: First, this 25 per cent, the money subject to $2\frac{1}{2}$ per cent tax, they expect to use twelve months in the year. The other, a $12\frac{1}{2}$ per cent, taxed 5 per cent, they expect to be used in an emergency. Am I right?

Mr. HAMILTON. Either one in an emergency.

Mr. POWERS. I understand both of them would be called for if there was no larger demand for money. Now, though I have no doubt that the bills are thoroughly good, and while I am willing to concede that there is a necessity for something to be done, if it can be, to give us more currency, provided it can be done in such a way as to be elastic and be returned, and not continue as a permanent condition, yet I have not been satisfied that the proposition of the committee would do it.

I have not been fully satisfied that there will be any such redemption when money is plentiful, as the committee claim for it, for the reason that you have stated more fully than I can state it; and, in fact, I have not been able so far to satisfy myself of the feasibility of this plan unless there is added to it a tax which shall make it an object of the banks to redeem or unless we propose opening the door and making it all elastic, as you suggested. Is that your view?

Secretary SHAW. Substantially. I think I made myself reasonably clear.

Mr. GLASS. Mr. Secretary, on this point of the probable speedy redemption of the outstanding credit notes you think that the credit notes will largely take lodgment in State banks and in trust companies. In response to that suggestion, Mr. Perrine took the view that the tax of $2\frac{1}{2}$ per cent on the notes, and the tax on the reserve against the notes, and the expense of issuance, etc., would be about 4 per cent—between $3\frac{1}{2}$ and 4 per cent—and that therefore in addition to the incentive that each bank would have to retire the other fellow's note, to redeem the other fellow's note and push out his own, in time of redundancy these banks, these national banks, could make money by going to the State banks and the trust companies, and even paying a premium of as high as 30 cents a thousand for these notes and sending them in for redemption—

Mr. GILLESPIE. Because they can send them free.

Secretary SHAW. I do not believe there is much in that. He assumes that each banker will be very thoughtful and analytical.

Mr. GLASS. But if he can make money by looking into that, will he not do it?

Secretary SHAW. If a man pays 1 per cent on his present circulation when by just changing his bonds from one account to another he can reduce the tax to one-half of 1 per cent, he is not looking out for the dollar very closely. In other words, there are particular lines in which he looks out for dollars, but he does not look for them along other lines.

Mr. PRINCE (acting chairman). I have promised Mr. McCreary opportunity to ask some questions.

Mr. McCREARY. Coming back to the question of speculation and the possibilities of it, Mr. Secretary, the fear of it is, as expressed by many, that the effect of credit or emergency currency would encourage and aid Wall street speculation. What is your opinion upon that subject?

Secretary SHAW. I have never felt any symptoms of that prevailing disease known as Wall-street-phobia. The speculation in Wall street probably bears about the same relation to the business in New York as the speculation in my town in Canadian and western lands bears to the whole volume of business transacted in my town.

It is not worth while to consider that, because when times are good people will inevitably speculate. To attempt to prevent that is out of the question. You can not stop it. When corn is the price it is now, our farmers will buy the next farm at \$100 an acre and put a mortgage on the farm they now have to get the money to pay for it. When stocks are going up and the tonnage the railroads are carrying is large and earnings high, people will buy the stocks and hypothecate the stock they already have as security for it. Bankers do not do that.

We have men in my town who have not done a dollar's worth of business in ten years except to deal in land. They do not call it "speculating;" they call it "dealing." It is frequently dealing in margins. They do not expect to improve or occupy the land, but they make one payment and think they can unload it before the other payments become due, and they generally do in these times. You can not stop these things, and in one sense they are legitimate. But you know it is the money that the other fellow spends in his campaign that is really objectionable [laughter], and it is the speculation that the other fellow engages in that is really dangerous to the country. [Laughter.]

Mr. CALDERHEAD. You speak of agencies of redemption. Where is the redemption to be made?

Mr. HAMILTON. The Government decides how it shall be, and the banks are required to carry the same reserve against this credit-note issue that they are required to carry against deposits; consequently that reserve is carried exactly under the same conditions. A country bank could carry a certain portion of its reserve with the bank in Des Moines and be able by that means to redeem its bills by the agency of that bank. That would not necessitate any additional burden on the Government.

Secretary SHAW. I understood you to say that you expected the Government to do this.

Mr. HAMILTON. Let me go a little further.

Secretary SHAW. Yes.

Mr. HAMILTON. It is proposed under the plan that the Comptroller of the Currency shall designate the places where the currency shall be redeemed—that such reserve centers may be established. But it would not necessitate any buildings, or anything of that sort on the part of the Government, to carry out that plan.

Mr. CALDERHEAD. Should the Government carry a balance at each one of these reserve agencies?

Mr. HAMILTON. With the exception of a certain reserve. The banks are permitted to carry a certain balance with the reserve agent, and it is contemplated that the same plan shall prevail in regard to the notes issue under this plan.

Secretary SHAW. Yes; and with the same form of note I think it is wise. There is one thing I want to call Mr. Hamilton's attention to, because it is a very important proposition. Suppose that you issue this money, this credit currency, you issue it because you need it—you need it because your reserve is exhausted.

You would not be short if your reserve was not exhausted. You have \$4,000,000 deposits and \$1,000,000 reserve. You have reached the limit. Therefore you want to issue some of this currency. In order to issue \$100,000 of this currency you must increase your reserve. If you had more reserve you would not need the currency. You can not issue the currency without increasing your reserve. You have got to call some of your loans, and if you had that \$25,000 of reserve that you have got to put up against the \$100,000 of issue you could make \$100,000 of loans of the kind that you can make with the new notes. Is there not an element of burden in the proposition not generally considered? Take a New York bank. The New York banks use but very little currency. Some New York banks insist this will not help them very much, because they pay out very little

money. Everything they do is done through the clearing house. They pay less money over their counters than almost anybody. Of course, they pay their balances, but everything is cleared. So they do not use much currency as distinguished from lawful money. Now, they have reached their limit and their reserve is exhausted, as it was last Saturday. Are they going to issue any of this circulation, which they can only use over their counters, and can not count as reserves, which they can only pay out, when in order to do it they must swell their reserve before they do it, and if the reserve was there they would not need to do it?

Mr. WEEMS. Mr. Secretary, you suggested the idea of giving the Secretary of the Treasury some power to compel elasticity, among other methods, for instance, by giving him power over the percentage of bank reserve at different times of the year. What would be the difficulty of combining that plan with the proposed measure, by allowing the Secretary of the Treasury to compel the retirement of these notes?

Secretary SHAW. I think the Secretary of the Treasury or the Comptroller should have the authority to compel the retirement.

Mr. SHARTEL. As to your idea in making these notes all alike, I would like to ask you this question, Mr. Secretary. If they were all alike, and an amount had accumulated in a certain bank and they wanted to send them back for redemption, they would not know whether they were sending bond-secured notes or credit-currency notes. Why could not they all be redeemed under the present system of redemption?

Secretary SHAW. That is a pertinent question. They would not know, and of course this plan that I suggest involves letting the redemption agent redeem all of these notes. But the objection to having them all redeemed, as now, is that it is so slow and so cumbersome that you would not get your elasticity. You know it is all redeemed here at Washington.

Mr. SHARTEL. Yes; I understand.

Secretary SHAW. In other words, the elasticity based on the advantage to the bank of redeeming the competitor's notes and issuing its own is bottomed on the ease with which redemption can be worked.

Mr. SHARTEL. But the redemption agency would not be able to distinguish as to what it was redeeming.

Mr. PUJO. Mr. Secretary, the stated object of this measure, and that is the argument advanced by the commission, is to increase the currency at certain periods of the year to facilitate the moving of crops, and furthermore, to secure a guaranteed and uniform or stable rate of interest and avoid the fluctuations that take place. What, in your opinion, will be the cost of issuing these credit notes to the banks and the supervision—the additional sum for supervision—of the new system? And then, if in your judgment a tax upon the circulation is fixed, would it or not be practicable to limit the rate of interest to be charged for this credit currency, making the tax very low and making the rate of interest very low, so as to cover merely the cost of interest and supervision, and allowing a small margin to the bank, because it is supposed that this is not a currency in aid of the banks, but a currency in aid of commerce, therefore the people? I would like to have an expression from you on that.

Secretary SHAW. I do not think you could limit the rate of interest to be charged. For instance, when money is worth 10 per cent in New York, the banks would not issue if compelled to loan at 5. It would not be to their advantage to issue this and pay 2½ per cent and loan it at 4 per cent. You have to base any scheme of this kind upon human selfishness, human desire to gain. You can not base it upon anything else. And if you compel them to loan at a very low rate when rates are high of course they would not issue. No usury laws have ever been made stringent enough to stop usury.

Mr. LEWIS. You were telling us how little money the banks of New York City used in daily transactions, and I was just going to come slightly to the rescue by telling you of an occurrence a few weeks ago with the Chase National Bank. In its settlements for one day's transactions through the clearing house it had debts—collections against the other banks in New York—of nine or ten million dollars. The other banks of New York had transactions against the Chase National Bank of so near the same amount that there was only 28 cents difference in \$10,000,000 transactions.

Secretary SHAW. Yes; that is a good illustration of that.

Mr. LEWIS. In \$10,000,000 there was only 28 cents difference.

Secretary SHAW. And you will find this to be true, that country banks use relatively more currency for their business, and the southern banks in the cotton country vastly more than city banks. The New York city banks use a smaller per cent of currency than any other banks in the United States, far less than any others. Do you not think so?

Mr. HAMILTON. Yes.

Mr. WALDO. There is no reason, is there, why the present bank issue can not be extended from the present total issue of 25 per cent to 100 per cent except that the banks would have to pay perhaps more than they think it is worth to them, and they would also have to part with assets, and would have to deposit bonds? Those are the two objections to the extension of the present bank-note system, those two things?

Secretary SHAW. Yes.

Mr. WALDO. So that from the banker's point of view the principal question is whether they may issue notes without parting with assets; that is the real thing?

Secretary SHAW. Yes. Now, mark you, that is not exactly right either, because they never would issue without getting an asset, you know, equal to the issue.

Mr. WALDO. Yes.

Secretary SHAW. In other words, the better plan is to say that what they want to do is to issue for the use of commerce without the expenditure of an equal volume of reserve money with which to purchase the security to be hypothecated against it.

Mr. WALDO. That is substantially what I mean. In the present case they have to buy and pay for this issue before they put it out?

Secretary SHAW. Yes.

Mr. WALDO. Would not an entrance into the system of allowing banks to issue these credit notes without depositing bonds tend to end the present national-bank-note system? Would it not be a step in that direction?

Secretary SHAW. Not safeguarded the way the committee safeguards it. They have provided that the amount of credit currency they issue shall be dependent upon the amount of bond-secured circulation that they maintain. You see, the bank has to maintain 62½ per cent of its capital in bond-secured circulation before it issues any credit currency.

Mr. WALDO. I understand that.

Secretary SHAW. That safeguards the bond-secured circulation.

Mr. WALDO. I know it does now, but what I mean is do you not regard this as a step toward the abolition of the present bank-note system and the entrance upon a credit system in this country, perhaps like the Canadian system?

Secretary SHAW. I am never afraid but that the wisdom of our children will equal the wisdom of ourselves. I have no doubt that there are some who would be glad to have that change. I know there was one member of the committee who suggested recommending that future issues of Government bonds should not be made available for circulation, having in his mind, probably, the inauguration of a system of credit currency. But that did not meet with favor in the committee, and I would not be afraid if the committee had all been in favor of it. I would know that the country would not be and it would not prevail. Of course, I wish that that had not ever been suggested, but it was. It was simply the one man's thought.

Mr. WALDO. As I understand, the present bill proposes that the tax be fixed not upon the amount of the credit notes that have been issued to the banks, but upon the amount of these credit currency notes that the bank has actually put in circulation?

Secretary SHAW. That it has put in circulation.

Mr. WALDO. In other words, that the books of the bank will show, for instance, that to-day, or yesterday, it issued \$100,000 of this credit-note currency. This morning \$50,000 of that issue was returned. To-morrow \$25,000 of that, it will show, is issued again, and the state of the average circulation from the bank, on the bank's books, will be what will fix the tax. Is that the system now with the present bank notes?

Secretary SHAW. Yes.

Mr. HILL. No, sir. The bank makes up its average every month and pays on what is outstanding from the vaults. They are required on their books to keep it, and you will see in every bank report made to the Government so much circulation, in vault so much, one deducted from the other, and the tax averaged on the whole.

Mr. WALDO. It has been feared by some that the issuing of these credit notes might eventually, if not now, interfere with the system that the Government now has of making loans, of borrowing money through the national banks in time of distress, and would lead to the abolition of the present system which has worked so admirably in that way.

Secretary SHAW. If I supposed it would have the effect of raising the interest rate on Government bonds, it would not change my attitude toward the proposition. We are borrowing money now very low. There are some things that are more important than simply selling bonds at a low rate of interest. If you can make this elasticity work satisfactorily it is worth more than 1½ per cent on our bonded indebtedness by far.

Mr. WALDO. Then your principal objection is that you think that this proposed plan, instead of giving \$200,000,000 of elasticity, will only give 22½ per cent of the actual issue that may be taken out by the banks?

Secretary SHAW. Yes. In other words, I believe that it provides inadequate contraction. I want the elasticity, but I want more contractions than this bill will provide. It will provide plenty of expansion, and I think too much, or at least more than is desirable.

Mr. GLASS. You want to put the whole national bank circulation on the basis of elasticity?

Secretary SHAW. Yes; and I am not by any means certain that there would then be very much contraction until you allow more than \$200,000,000 of issue. Because, as I say, if midsummer will absorb what money we have plus the \$200,000,000, then of course it will not contract. If your possible issue does give a redundancy, then there is no contraction in it.

Mr. PRINCE (acting chairman). Are there any further questions?

Mr. HAYES. I think this is clear now, but I want to get it a little more positive. I gather from the Secretary that his opinion is that the \$200,000,000 is what the country needs of currency itself?

Secretary SHAW. No; I would not say that.

Mr. HAYES. That you think that it needs about that amount for the legitimate demands of business?

Secretary SHAW. No; I think that the country could possibly consume and probably would consume \$100,000,000 more in midsummer and not always prove redundant. There has been a redundancy of money in most summers, but not all. But whether the banks would try to retire it is what I am afraid of. I am afraid they would not think of the tax there is against it; I fear it would not operate as automatically as it does with thirty big central banks to give instructions to their branches. You know what I mean. I think you feel that, too.

Mr. HAMILTON. Yes.

Mr. PRINCE. (acting chairman). Are there any further questions?

Secretary SHAW. There is one other subject which comes before you that I want to speak about. We are in sore need of small money. Let me urge upon you that you do not make a mistake. I have talked with one or two members of the committee, and I have been unable to get my thought before you. The bill that you reported, and which possibly passed the House—

Mr. PRINCE (acting chairman). I do not recall whether it did or not.

Mr. McCREARY. Making the \$20 gold note into fives?

Secretary SHAW. Yes; into fives.

Mr. PRINCE (acting chairman). It is on the Calendar, as I understand.

Secretary SHAW. Let me suggest that you cut out that \$5 gold certificate. That means contraction, as certain as the world. Get this thought: Every time you send a gold certificate home in the pockets of the people, you take reserve money out of the bank. The money that should be carried home by the people is the bank note that is not good for reserve. The only reason why Congress did not allow the banks to issue one and two notes was to provide for the silver,

and get the silver absorbed by the certificate, so that no one could make a raid on the Treasury with silver certificates.

If you had silver certificates of a thousand-dollar denomination they would be gathered up by some one as a speculation, and they would raid the Treasury with them. Hence they are issued only in small denominations, so no one can get enough to do harm with. Now, silver is all absorbed. Providing more bills of small denominations does not send gold home into the pockets of the people, but sends bank notes. Allow the banks to issue more than a third in fives.

Let the banks issue more fives, and if you will pardon me, I think that the amount of fives that they shall issue ought to be left discretionary, so that the Secretary of the Treasury can feed out, if you please, the fives. It is more profitable for the banks to maintain small bills than it is large ones. There is another illustration of want of thoughtfulness on the part of the banks. There are no end of national banks that maintain practically all of their circulation in bills of the \$20 denomination.

Every time they pay out one of those \$20 bills it finds its place in somebody's bank. It can not be counted for reserve. It comes back for redemption immediately. And yet they maintain, without stopping to think, that it would be profitable to maintain fives, because the fives would stay out. What would a \$1,000 bank note be worth? It could not be used. If it went out in the morning it would be back over the counter of somebody's bank before noon. The bank, unable to use it as reserve, sends it in immediately for redemption.

Mr. PRINCE (acting chairman). If there are no further questions, we will thank the Secretary for giving us his time.

Secretary SHAW. I am very glad to have come before you, Mr. Chairman. One thing more. My friend suggests that the high taxed issue will discredit the issuing bank. I grant you it will discredit the bank if it issues a new kind of paper, and I would not recommend a new kind of paper.

Mr. HAMILTON. And it would show in the statement of the institution and in the hands of the competitor.

Secretary SHAW. Yes.

STATEMENT OF HON. A. J. WARNER.

Mr. PRINCE (acting chairman). Will you state your name and your residence?

Mr. WARNER. A. J. Warner. My permanent residence is in Marietta, Ohio. I am an ex-Member of Congress, as you will probably remember.

Mr. PRINCE (acting chairman). Yes.

Mr. WARNER. I am spending most of my time in Georgia now.

Mr. PRINCE (acting chairman). Make your statement, Mr. Warner.

Mr. WARNER. In the first place, Mr. Chairman, it will be found impossible to segregate the proposed credit notes from other notes, as to their effect on prices. Credit notes, to the extent that they go into circulation, will affect prices precisely the same as any other notes. The demand for money arises from two causes almost entirely. First, from a rise of prices requiring more money to effect

the same number of exchanges. Second, to effect a greater number of exchanges at certain seasons of the year. Money or currency of any kind that goes into circulation and helps to raise prices never lessens the demand for money. The higher prices go the greater the demand for money. If you double the volume of money and thereby double prices, the demand for \$2 would be as great as the demand for one now. There is no limit, therefore, to the demand for money coming from a rise of prices; absolutely no limit. It grows with what it feeds on.

A rising price line is certain for all gold standard countries for the next decade or two anyway, from the increased production of gold alone. Now it is proposed to add to that a large issue of paper money. The effect necessarily will be a further rise of prices. Now, what does a rise of prices mean? It is precisely the same thing as the depreciation of money. The statement of one fact is a statement of the other fact. If I say the currency has become depreciated, that the value of money has become lowered, I mean that prices have risen. Price is the value of a thing in money. It is impossible to have a rise in the value of all things among themselves, but there may be a rise in the prices of all things in money, according to the law announced by John Locke one hundred and fifty years ago.

Things may vary in value, one thing with another, under the law of supply and demand, but a general rise or a general fall can only happen when you have an increase or decrease in the volume of money; no other way. Price is the value of a thing in money. If you increase your money volume faster than population and accumulated wealth, you will raise prices. Prices are too high now, certainly as to many things. If prices were 25 per cent lower, it would take so much less money to do the same business. Let me illustrate the effect, for instance, as to railroads. I am interested, in a small way, in railroads, and not in banks. Congress and State legislatures are reducing the charges which railways may make.

On the other hand, the increase in the money volume is raising prices, which is the same thing, as I have said, as lowering the value of money, so that railroads are obliged to receive both fewer dollars and dollars of less purchasing power. They must pay higher wages and higher prices for everything. Let that go on for ten years and what railroad can pay dividends on stock, or even interest on bonds. That policy, if continued long enough, must end in bankruptcy for most railroads.

Gentlemen, you can not increase national wealth by depreciating the currency. You can not increase wealth by measuring wealth with a smaller dollar. The estimates of the increase of wealth by Government bureaus for this reason are scarcely worth the paper they are printed on. Why? Because they take no account of the change in the measure. No one would claim that we could increase the territorial dimensions of the United States by shortening the links of the surveyor's chain. But we might as well attempt to do that as to attempt to increase national wealth by depreciating the currency.

The currency is depreciated or appreciated in one way only, absolutely one way, and that is by increasing or decreasing the quantity. It is not color or weight, it is quantity, that changes and determines the value of money. It is not to the interest of the United States

or the people of the United States to have prices go higher. You do not add to the wealth of the country by increasing the price of property that previously existed. A revaluation by a smaller measure adds nothing. That we have had a quantitative addition to our wealth undoubtedly is true; but all that presumable increase that comes from a change in the measure is no increase at all and is very misleading.

For these reasons I am opposed to the depreciation of our currency by increasing the volume so excessively over and above the large and certain increase in the gold production of the world, more than a million dollars every day, from a million to a million and a quarter, and there is certain to be a further increase for the next decade or two. In regard to the demand for money I wish to say there is no such relation between supply of a paper currency and demand for money as admits of automatic adjustment. The money goes out and a rise of prices follows and absorbs the new currency, and it will not come back.

Of course the planot tax note issues will operate to contract at times the total outstanding currency volume, but notes carried in the pockets of the people will not be given up. But on what principle, under this bill, will the banks regulate the supply of currency. On one principle only, their own interest. Nothing else, no other principle, will govern.

When it is to the interest of the thousands of banks to increase the volume of money, they will increase it. When they can make money by contracting it, they will contract it. It is too much to expect of human nature that they will do otherwise if by law they are given that power.

For that reason also I am opposed to this bill. I am in favor of the greatest possible stability in price levels, and I think that all variations that are produced by the change in the value of money is on a false principle. The greatest possible stability comes from stable relations between the needs for money and money. These are the two things that should govern money supply: Population and accumulated wealth on the one hand—that is, people to buy and sell, and things to be bought and sold. An exact adjustment to these conditions may not be possible, but these are the two controlling factors that should be kept in view.

I agree that there are times when more money is needed to effect a greater number of exchanges. That is, there are more exchanges to be made at one time than another. That demand can be met best, in my judgment, by bank credits, not by notes. And therefore I am in favor of a central national bank, under control of the Government, which should deal with banks only, not with the public, and be so controlled that we may have intelligent regulation instead of haphazard regulation.

Such a bank would, of course, be under the control of a competent board. It is by means of credit devices that can be created and extinguished in an hour or a day, any day in the week, and any week in the month that means of payment can be best regulated. Such credit devices can be so regulated as to have but slight effect on prices.

I would like to call the attention of the committee to what in my judgment is the greatest publication in the English language

on the currency question, that is the great Parliamentary report of 1857, the result of a discussion for a whole half century by the very ablest men of the period under review. I doubt not you are familiar with this discussion; I felt as though I would like to call the attention of the Secretary at one time during his explanation of his plan to a saying of Ricardo, that all the plans that he had ever seen for regulating the currency looked only to securing final payment, without ever thinking of regulating the quantity by which the value of the currency was determined. I would like to recommend that such a commission be appointed for this country. It has been now fifty years since the commission referred to made its report. That is about all that I care to say. I would like to add, however, that rate of interest does not depend on volume of money, but on profits on invested capital, and will tend to rise as prices rise.

In conclusion I wish to emphasize my protest against this bank measure that puts into the hands of the banks the power to expand and contract our currency as their interests may dictate, which is the power to turn over in a few years the bulk of the wealth of the country to a few.

I am very much obliged to the committee for the courtesy extended to me in granting me a hearing after the arrival of the hour for adjournment.

(At 1 o'clock p. m. the committee adjourned until to-morrow, Saturday, December 15, 1906, at 11 o'clock a. m.)

COMMITTEE ON BANKING AND CURRENCY,
HOUSE OF REPRESENTATIVES.

Washington, D. C., December 15, 1906.

The committee met this day at 11 o'clock a. m., Hon. George W. Prince in the chair.

STATEMENT OF MR. WILLIAM B. RIDGELY, COMPTROLLER OF THE CURRENCY.

Mr. PRINCE (acting chairman). Mr. Ridgely, the Committee on Banking and Currency would be pleased to hear your views, not only for our own benefit, but for the benefit of the country, as to the proposed plan of a credit currency suggested by a committee of the American Bankers' Association. Will you be kind enough to give your views as to that proposed plan in your own way?

Mr. RIDGELY. I have prepared, as you know, gentlemen, quite an elaborate report on this very question, which I sent to the Speaker and furnished to every Member of the House; and I am like the man who was asked to make an explanation of some story to his wife, and when she said she hardly believed him, said: "I have been thinking over this thing for a week, and that is the best I can do."

Mr. PRINCE (acting chairman). Of course, Mr. Ridgely, you have not had an opportunity to read the views of these gentlemen, as given to the committee, because they have not yet been printed and made ready for circulation; but you have a general knowledge of what they are, and we would be pleased to hear you along that line.

Mr. RIDGELY. I was present at many of the meetings which they held at the Willard Hotel, in which they elaborated that plan, or a general outline of the principles upon which they think the currency ought to be improved; and in the main I am pretty thoroughly in accord with what they propose, although I differ with them in some of their ideas. I do not know, however, that our differences are very essential.

I agree with them that the only way, the only practical good way, that we can now change our banking currency so that it will be elastic and responsive to the needs of the country is through some form of credit notes. Of course, as you all know, we have over five hundred millions of bond-secured notes. You are all familiar with their history and how they work. They are very good notes, have always been good, and they have the prime requisite of being always uniform and thoroughly reliable. But there is no response to the business of the country in those notes, and I do not see how there can be in any bond-secured note.

It seems to me it is necessary in order to make the note circulation responsive that it should have the element of credit in it. We have these notes in circulation and have been used to them for forty-two or forty-three years now; the people like them and are satisfied with them, and therefore I think the only thing we can do is to add to this bond-secured circulation a certain amount of credit notes. I think they ought to be purely credit notes, protected by gold reserves in the bank and with very ample and elaborate machinery for redemption, rather than be protected by any further deposits of the bank's assets, such as railroad, State, county, or municipal bonds, or by a deposit of notes or other assets with any clearing-house association, as has been sometimes suggested. Therefore, to confine this discussion to the plans discussed by this committee of bankers, I say, as far as that is concerned, that I agree with them thoroughly. Have you a copy of their plan, Mr. Prince?

Mr. PRINCE (acting chairman). Yes.

Mr. RIDGELY. I would like to take it. I did not know you would ask me this morning to discuss this specific plan.

Mr. WEEKS. I suggest that he discuss those things in which he does not agree with the plan proposed by the bankers' committee.

Mr. HAYES. I think we have all read the Comptroller's report, so that, it seems to me, Mr. Weeks's suggestion is a good one.

Mr. PRINCE (acting chairman). Very well; we shall be glad if you will follow that suggestion.

Mr. RIDGELY. I submit this report and will refer to it and discuss the necessity of some action, rather than the details of any particular action. But, as you suggest, Mr. Chairman, I will be very glad to go over this and make it very brief. Taking it on the fourth page, where they give their recommendations, as I have just stated at some length, I thoroughly agree that a credit currency should be issued by the national banks under certain proper restrictions. I also most emphatically agree with them in the proposition they lay down that the bank note is essentially the same in principle as a deposit payable on demand, and that is a book deposit converted into such form that it passes current. It is simply a current-deposit liability of the bank.

Since all the elasticity in our supply of currency must come from

the bank notes, it is therefore of vital importance that they be given this quality of elasticity in the highest degree possible consistent with safety. This should be done with the greatest possible care, in order that the essential qualities of safety and uniformity in value, which our bank notes have always had in so marked a degree, shall not be lost or impaired. I have enlarged upon that at considerable length in my report. I do not know that I have anything to add to that.

It seems to me that is the essential point in the whole thing, Mr. Chairman, that there is no difference, no essential difference, between a deposit credit and a note credit, and that the banks should be permitted to issue it in whichever form their customer demands of them. As long as a customer has credit on the books of the bank it should be his privilege to leave it there, to be checked against or come in and get bank notes for it to transact his daily business with. I regard that as the essential principle of any banking currency, and for that reason I think the committee are exactly right in their recommendation that the same reserve should be held against the note credit as the banks now hold against deposit credit. That is what I recommended in my report as long ago as 1902, and I think that is an essential part of it.

I also emphatically agree with the report and recommendation that no measure be taken to impair the market value of United States bonds.

Mr. KNOWLAND. Do you believe that that plan, as proposed, is going to relieve the condition? Do you believe it goes far enough—the proposed plan of the Banking Association?

Mr. RIDGELY. I would increase the percentage of credit notes somewhat if it were left to me.

Mr. KNOWLAND. How much?

Mr. RIDGELY. I would see no objection to going up to 50 per cent of the bond-secured circulation.

Mr. McCREARY. Intead of 40 per cent?

Mr. RIDGELY. Yes. I have recommended in my report that we begin at 20 per cent and go up 10 per cent per annum until it gets up to 50 per cent. It seems to me that would be the most practical way to do it, and the best way to do it. However, that is one of the things that I think is a matter of detail. While it is important, it is not essential. That is largely a matter of a man's own estimate of the effect of this thing. You can not sit down and figure it out to a fraction. Every man has got to make his own mental estimates, based upon his own experience, of about what this will do.

Mr. KNOWLAND. There is no question in your mind but that some kind of relief is needed?

Mr. RIDGELY. Oh, absolutely; I think it is imperatively needed. I think the situation is very bad for the lack of it.

Mr. McCREARY. The fear, Mr. Comptroller, is that if this \$200,000,000 gets out it will increase an era of expansion, and it will lose its contractive power. The question is how to get it to contract when it is not wanted; whether a low tax or a high tax will be the best thing for it.

Mr. RIDGELY. I am for a graduated tax, Mr. McCreary, as my report states. I do not think the high-tax notes will be of any great

or real value in an emergency without a considerable volume of low-tax notes.

Mr. McCREARY. The crux of the difficulty seems to be the making of it automatic.

Mr. RIDGELY. I believe that can be done. I believe the bank should be required by law to carry the same reserve as against deposits. I think the banks will keep more than a legal reserve when these notes come in rapidly, just as now a prudent banker keeps more than the legal reserve against deposits. I have talked with old bankers who did business before and during the war, when they had notes which had to be redeemed, and they all remember with great vividness the constant attention that had to be given to the matter of providing for the redemption of the notes when they were presented. I think the low tax with a high reserve is far preferable to a high tax with no reserve.

Mr. McCREARY. The reserve is really the security for the redemption?

Mr. RIDGELY. It is necessary to make it contract as well as expand. That is the essential part of it.

Mr. McCREARY. That is the vital part of this bill.

Mr. RIDGELY. That is the vital part of it.

Mr. McCREARY. Now, there is another suggested question. One suggestion is made that they should be called the national-bank credit-guaranteed notes. That would queer it, of course, the moment it got out into the hands of a man who would say, "This is different, somewhat, from the bank note." Now, the suggestion was made that all issues should be made of one kind and one character, so that there would be nothing on the face of it to show a difference between a bond-secured note and a credit-secured note.

Mr. RIDGELY. I think that is very important. Mr. McCreary; all the bank notes should be uniform in appearance.

Mr. McCREARY. And that it should have nothing in it to indicate that it was a different note from a bond-secured note?

Mr. RIDGELY. Yes.

Mr. McCREARY. Both of them are secured, one by bond and the other—

Mr. RIDGELY. By a guaranty fund.

Mr. McCREARY. So that they stand before the country in the same light, so far as value is concerned?

Mr. RIDGELY. Yes.

Mr. CALDERHEAD. Do you regard that as equally safe?

Mr. McCREARY. That is a question.

Mr. RIDGELY. I think so. I think the Government should guarantee these notes. It was so stated.

Mr. McCREARY. There is a guaranty back of it?

Mr. RIDGELY. If the Government takes a 5 per cent guaranty fund and requires the banks to keep it good, they are in a position to be absolutely safe in the guaranty. They have the money there.

Mr. McCREARY. They have the money there to pay it with?

Mr. RIDGELY. Yes; you have enough money on hand all the time to pay the average losses of a hundred years on the basis of the losses which have occurred in the national banking system up to date.

Mr. McCREARY. Now, there is another question that comes in under your jurisdiction as Comptroller, and that was the matter of re-

demption agencies, and where to locate them; whether it would require a building and safes and vaults and a custodian, or whether it could be done through the selection of some bank in certain central places.

Mr. RIDGELY. I do not see why it should not be done in most of the places through the banks or through the Clearing-House Association. You would want to have just about such an outfit in each redemption agency as you have in a moderate-sized bank in the country. You ought to have ordinarily a room the size of this in which to conduct the redemption agency, with perhaps a smaller room or two for the officers. I do not think ordinarily that would take a big outfit. You might find need, perhaps, of a little more than that in New York, Chicago, and St. Louis, and possibly in Philadelphia or other large cities, but it need not be an elaborate outfit anywhere.

Mr. KNOWLAND. Could you estimate the cost?

Mr. RIDGELY. Do you mean the absolute dollars per annum or the percentage on notes?

Mr. KNOWLAND. Well, the per annum.

Mr. RIDGELY. That would depend on the volume of notes. The cost of issuing and redeeming the present notes is about 80 cents a thousand.

Mr. KNOWLAND. I had particular reference to the fitting up of these agencies.

Mr. RIDGELY. I have made no calculation on that. I have here a list of the reserve and central reserve cities and the subtreasury cities, in each of which there should be a redemption agency: Boston, New York City, Albany, Brooklyn, Philadelphia, Pittsburg, Baltimore, Washington, Savannah, New Orleans, Dallas, Fort Worth, Galveston, Houston, Waco, Louisville, Cincinnati, Cleveland, Columbus, Indianapolis, Chicago, Detroit, Milwaukee, Minneapolis, St. Paul, Cedar Rapids, Des Moines, Dubuque, Kansas City, St. Joseph, St. Louis, Lincoln, Omaha, Wichita, Denver, Seattle, Portland, Oreg., Los Angeles, San Francisco, Salt Lake City. Of these there are subtreasuries in nine cities—Boston, New York, Philadelphia, Baltimore, New Orleans, Cincinnati, Chicago, St. Louis, and San Francisco.

I think there should be an addition to this list of reserve cities—that is, we would have to have redemption agencies in cities which are not reserve centers; probably in the Dakotas, and probably in Montana and Idaho; more than are provided for here. You would have to look over the map and consult railroad routes and the facilities of railroad communication. I do not know whether it is in the report of the banking commission or not, but the agency idea is discussed somewhere, and it is there held that you should have every bank within twenty-four hours of a center. Of course there are some banks out in the mountains of the West that are on stagecoach routes, and we could not do that without having too many in the small towns.

Mr. McCREARY. The objection was raised that in some sections it would take two or three days to communicate, and, of course, there would be a loss of the money in the meantime. Now, Mr. Comptroller, in regard to the centers in small towns, where they have but few banks and no clearing house, and where they are geographically

in the center of a section, how would you arrange for such places being made redemption agencies?

Mr. RIDGELY. I would try to arrange that through a bank which was there. That would be my idea. I think that would be practicable. I think you might have to have some additional vault facilities, but I believe that could all be arranged.

Mr. KNOWLAND. It would be much less expensive?

Mr. RIDGELY. Yes.

Mr. McCREARY. If the thing became so expensive as to be burdensome to follow, the suggestion, which did not certainly appeal to me, was that they would require a building with vaults and a custodian, and if that matter would run up to \$10,000 or \$20,000, \$10,000 for the plant and a couple of thousand dollars for the maintenance—

Mr. RIDGELY. If you have 2 per cent tax, you will have a good deal to work on. That will produce from two and one-half million to five million dollars a year, and it is like the Comptroller's Office. We have collected from the national banks since the Comptroller's Office was organized, I think, \$186,000,000, and I think we have spent only about \$20,000,000, so that this produces an enormous amount of revenue.

Mr. JAMES. But the purpose of this taxation and of the proposition submitted by the Bankers' Association is to redeem these credit notes.

Mr. HAYES. Yes; and to pay the expense of it, too.

Mr. RIDGELY. Yes; and to maintain the 5 per cent guaranty fund; the first claim on the 2½ per cent tax would be of course the operating expenses, salaries, and actual expenses of that kind which would have to be paid, and the next thing would be to recoup the guaranty fund if it became impaired, and then you would have a very large surplus to turn into the Treasury.

Mr. JAMES. But their proposition is not to put the Government back of the note issued, but to have them redeemed out of this 2½ per cent fund.

Mr. RIDGELY. I think it would help their proposition very much to put the Government absolutely back of it. The Government should be back of it.

Mr. JAMES. Do you favor a change or repeal of the limit for the retirement of the old notes?

Mr. RIDGELY. As regards the old notes, the limit should be increased, and there should be some discretion vested in the Secretary of the Treasury.

Mr. JAMES. If we did repeal that \$3,000,000 limit, could not a chain of banks retire \$50,000,000 a week, or \$50,000,000 a month, and make more stringent and close the money market?

Mr. RIDGELY. Yes. A chain of banks to-day can call two or three hundred millions in New York, and break us all before we can get back to our offices. I do not think there is any particular danger of that, however. But to cover any undue amount of that sort of thing I suggest, as I did a moment ago, that the limit be increased, and that the limit be in the discretion of the Secretary of the Treasury.

Mr. JAMES. But is it not true that the proposition submitted by the bankers' committee to this committee proposes to wipe out the \$3,000,000 limit altogether?

Mr. RIDGELY. I believe it does.

Mr. JAMES. And if that is the case, the whole thing could be bankrupted before you got back to the office?

Mr. RIDGELY. Yes; and it could be done now, but it has gone on for a period of forty-odd years.

Mr. JAMES. But the limit is \$3,000,000 now.

Mr. RIDGELY. But in how many other ways can not a chain of bankers, if so disposed, do the same thing or worse?

Mr. PRINCE (acting chairman). It might be well to explain how that could be done, so that we can see.

Mr. RIDGELY. There are demand notes to the extent of \$995,000,000 to-day. Every one of them can be called before 1 o'clock. That has been the condition for forty or fifty years.

Mr. JAMES. But that is not on the Public Treasury.

Mr. RIDGELY. This is not the Public Treasury, either.

Mr. JAMES. With the \$3,000,000 limit they would retire the currency and put it out of circulation?

Mr. RIDGELY. Yes; but these men can call \$995,000,000 to-day, and lock it up, or burn it up, if they choose. I do not think it is possible, however. That is not one of the things, I think, you need guard against.

Mr. PUJO. Do you mean demand loans owned by the Government?

Mr. RIDGELY. The national banks hold notes payable on demand to the extent of \$575,000,000; "call loans," they are called.

Mr. PRINCE (acting chairman). If they want the money and call it, the man has to furnish it. Where are they going to get it?

Mr. RIDGELY. As long as there is any banking that danger will exist. That is so infinitely greater than this other, and they have not exercised that possibility of power in forty-three years, and therefore why need we fear that they will do the other thing?

Mr. PUJO. How would that reduce the amount of money in circulation?

Mr. RIDGELY. They could take the money and burn it up if they wanted to. They could make every man pay legal-tender money. Of course that kind of obligation is never paid in currency at all. I do not suppose or believe that when those \$575,000,000 are called in \$1,000 of currency is used in the transaction.

Mr. McCREARY. Mr. Comptroller, coming back to Mr. James's suggestion that a chain of banks could take and gather up and send in for redemption a large and unlimited sum of currency—

Mr. RIDGELY. Yes—

Mr. McCREARY. That would operate in this way: The bonds would immediately go down; other people would take advantage of that and either start banks or take out their currency, and the bonds or currency would be about an even thing. When they went down below the point where they could profit by them the other fellow would simply go in and increase his currency and buy his bonds, so that the thing would be offset.

Mr. RIDGELY. There would be a lot of other fellows waiting there for the chance to buy those bonds and do the other thing.

Now, to answer Mr. James's question further, I think the \$3,000,000 limit is too small. I think it ought to be increased. I think the banks should be enabled to retire a good deal more of those bond-

secured notes. That limit was put on it when the circulation was \$185,000,000. It is now \$517,000,000. I think that ought to be increased to certainly twelve or fifteen millions as a limit, but I would leave it all in the discretion of the Secretary of the Treasury, so that he can stop it at any time. I do not believe much in this discretionary arrangement of controlling all the Government's finances as a rule, and I believe we ought to get the Treasury out of our finances more and more all the time; but that, I think, should be left largely to the discretion of the Secretary. Ordinarily no harm is done in the retirement of these notes and changing round about by the different banks.

That is what is needed by the business of the country. As a rule, there is absolutely no consultation or cooperation between the banks. Each banker does what his locality and situation demand; and I think where that can be done freely and untrammelled the composite result of that on business and the operations of the Treasury is the best thing we can have. But for the protection of the price of bonds, when a new issue of bonds is about to be put out or something of that kind, I think the Secretary of the Treasury should be given some discretion to handle that.

Mr. GILLESPIE. You partly answered the question I had in mind when you stated you would leave some discretion in the hands of the Secretary of the Treasury. The Secretary yesterday made this point in arguing against the removal of this limitation: That when he got ready to sell Panama bonds he found some banks putting bonds on the market in order to get these Panama bonds at a low rate, and if there had not been this \$3,000,000 limit there he could not have got the premium he did in the sale of those bonds.

Mr. RIDGELY. I am heartily in agreement with the Secretary in his views on that, and I think he is exactly right.

Mr. GILLESPIE. That is why you suggest that some discretion be left in the hands of the Secretary of the Treasury?

Mr. RIDGELY. Yes. I think the \$3,000,000 limit should be increased. But it should be in the discretion of the Secretary to stop it or modify it at any time.

Mr. JAMES. You would not advise the committee to report a bill wiping it out absolutely?

Mr. RIDGELY. No; it should not be applied to these credit notes at all. I think they should go on just as freely as possible. I think that is an essential point—to make them just as elastic and make the transactions just as free as they can be made.

Mr. HAYES. Mr. Chairman, I want to return to this redemption proposition just a moment, because I do not think some of our committee have a clear idea regarding it; at least I did not get it from your statement. Now the plan is not to establish independent redemption agencies anywhere, is it, but rather to arrange with some bank or subtreasury?

Mr. RIDGELY. Where there is a subtreasury it could naturally be done at the subtreasury.

Mr. HAYES. And where there is no subtreasury it could be arranged with the bank?

Mr. RIDGELY. It ought to be done by a Government agent. There should be a government man there to supervise it and to keep the account and to have charge of the currency. Perhaps you could

deposit that with the bank or leave it on special deposit with the bank. I do not believe that would be difficult to arrange.

Mr. HAYES. But you think perhaps there should be a separate building, a separate place for the redemption agency in each place?

Mr. RIDGELY. In some places there would have to be some separate establishment, where there is a great deal of it, and in other places it could be done at the ordinary banks. That is something, however, that has never been brought up, like the man who, when he was asked if he could play the violin, said: "I do not know; I have never tried."

Mr. GILLESPIE. The banks could independently go and make arrangement with another bank to redeem my notes and notify the world of that fact?

Mr. RIDGELY. Yes. Each bank would have to have some arrangement in some reserve city. Some bank would take care of their redemptions.

Mr. GILLESPIE. A man could go to work and establish an independent agency of his own?

Mr. RIDGELY. Of course, practically, he would find that the practical thing to do would be to have an arrangement there with one of the banks.

That brings up what I want to speak of in regard to these redemption agencies. It is a little out of the order in which I wanted to come to it, but I want to say this about the redemptions while we are on that subject: This is the vital point of the whole thing, and it has been urged, as against the elasticity of the credit notes, the gold reserve notes, that they would get into the hands of the savings banks and trust companies and would not be presented.

Of course, a national bank, as soon as they got a note of any bank, if a customer did not come right away for the cash, that night they would send it to the redemption agency in order that it might be transferred to their credit and count as a reserve. In order to make the same inducement to the State bank, the private bank, and the trust company, I think we should give them the same privilege of sending these notes to the redemption agency and then transferring that credit that they would thus acquire; certainly to the subtreasury cities and, if possible, to any reserve city, so that that would be immediately available to the State and private banks as an exchange. That would be the inducement there would be to them to gather up these notes and send them in for redemption, and that would prevent them from getting off into a sort of eddy where they would not come back into the current again.

I think that is a very important part of this thing. If we do not have something of that kind, there is this danger, that has been discussed a great deal in financial papers and among bankers about these notes being sidetracked in banks other than national, and therefore not being presented for redemption. I do not see why that can not be done. It would save the transfer of currency a great deal back and forth over the country, and it would add materially to our efficiency in banking results.

Mr. WALDO. Mr. Ridgely, what part of this credit currency do you think would go out during the movement of the crop, and how much of it do you think would be redeemed at the end of that period?

Mr. RIDGELY. That is a pretty hard thing to estimate, you know, and the best way to tell anything about it is, it seems to me, by what happens in Canada and Germany and Scotland, where they have a near approach to these notes, and especially in Canada, where the conditions of climate and large areas of country and the handling of crops are very similar to ours. I prepared a diagram and gave 20 copies of it to Mr. Fowler. I think they came up here.

Mr. WALDO. One is right back of you there [indicating].

Mr. RIDGELY. Yes. I prepared a still larger one than that and I had 20 copies made, upon which I put some other lines. I meant to bring it up to the Capitol this morning, but I did not get my papers. You see, in Canada every year in October there comes a maximum, and in January it goes back to the minimum without any variations, and this line here [indicating on diagram], as shown in the last five years, is exactly the same as the line in the variation of that currency since 1879. I have not got back further than that, because I did not have the figures available.

That happens every time. That is a pure credit currency; that is not taxed at all. It goes out because people want it to transact their business. It comes back when they are through with it for that purpose, and it retires itself from the requirement that it shall be redeemed in at least one city in every province of the Dominion. In fact, the 30 banks that redeem it have about 1,094 branches, and they are redeemed at every branch.

Mr. WALDO. Then every bank there is a redemption agency as well as the separate bank?

Mr. RIDGELY. It is hardly that in the sense that I have been discussing it in this bill, because the other banks do not send it by mail and express or otherwise to the branch banks. As a rule they send it to the chief branch in the province they are in or to the head office.

Mr. WALDO. Don't you think, from the fact that so large a portion of our banking system is made up of State banks and trust companies, that it would interfere with that readiness of redemption?

Mr. RIDGELY. I do not think it would if you would allow them the same privilege of sending them in and make the funds available for them at any of these subtreasuries at their option. I think the desire on their part to make these notes as they come into their hands available for exchange will lead to their redeeming them pretty nearly as promptly as the national banks. I think we could get the cooperation of the State banking departments. I think most of the States should provide that they should not hold them in their reserve. That would add so much to the efficiency of the whole system that I think the States would do that, and then I think the tendency would be to hold gold and gold certificates on the part of the State banks themselves.

Mr. WALDO. Ought we not to extend the powers of the national banks to do business, so that they would not be so much handicapped in the competition with State banks and trust companies?

Mr. RIDGELY. That is another question and a pretty large one.

Mr. WALDO. That has to do with this question.

Mr. RIDGELY. I had thought there was great sense in the recommendation of the Secretary of the Treasury that the national banks

be given trust-company powers. I do not see why that should not be done.

Mr. GILLESPIE. How about the savings banks?

Mr. RIDGELY. Now, as a matter of fact many national banks do have savings accounts. They are limited in the way in which the funds produced by the savings accounts can be invested. The same restrictions apply to national-bank savings departments as they do to the national bank itself. I do not see why a system could not be worked out by which the national bank should do a trust-company business, a savings business, and commercial business. It would be a pretty radical change in our present system. But that is a thing we could talk about for two or three days, as you have done on the currency-question commission.

Mr. WEEKS. I have got an impression somewhere that the fact that the currency comes in so readily in Canada, where there are about thirty principal banks, as I understand it, is perhaps due to the co-operation of those banks. Do you think there is anything in that? I am told, Mr. Ridgely, not by Canadian bankers—I have no experience in Canada—but I have talked about that a good deal with Mr. Forgan, who has been before your committee for several days. You know Mr. Forgan was a Scotchman who came to this country and went into a bank in Nova Scotia and then went to St. Paul and saw country banking there, and now he is president of the First National Bank of Chicago, which has probably the largest commercial and most diversified business of any bank in America. He has had a pretty wide experience in that sort of thing, and his Canadian experience, of course, is something that many of us have not had. He does not think that the cooperation is an important factor in it.

Mr. GILLESPIE. Do you not think the table itself exhibits co-operation? There must be cooperation between the banks. The violent fluctuations there show that.

Mr. RIDGELY. No; quite the contrary. It shows the operation of principles and laws that work the same every year. If it was cooperation the chances are that they would cooperate in a little different month or week in the year. The wheat crop, you know, is the main crop, and in October the currency demand is at its maximum, and down again in January to its minimum, owing to the severe winter. That shows that it is largely the result of fixed principles and laws, and not the result of cooperation or the governing control of supervising authority. You will find the same thing occurs in the credit notes of Scotland and also of Germany. Germany has several decided variations in a year.

Mr. GILLESPIE. Now, another question in regard to that table. Ought not those violent fluctuations be compared with our deposit currency, and not with the money in circulation? Because this credit-currency system is another form of deposit system. It is shifting from the deposit liability to a note liability.

Mr. RIDGELY. I have made that very comparison, and I find no fluctuation in that at all in that way, for this reason, that the great increase of business here has kept all our lines on a gradual slope upward.

Mr. GILLESPIE. Take their money in circulation. What sort of a line would that describe, as compared with ours? Not their note circulation, because that is a check or deposit currency.

Mr. RIDGELY. I have sent for some more figures. I did not have the exact figures I wanted for the whole period; but I find it here [indicating]. It follows this line [indicating] considerably. It was not as high or jagged as that, but it followed it. I tried to see whether the line of deposits in Canada would run down when the notes ran up, and up when the notes ran down, but I find, probably for the same reason that has increased the capital of the Canadian banks and increased our deposits, that the Canadian deposits follow a line approximately parallel with this, following the capital.

Mr. GILLESPIE. Does that top line represent the money in the banks?

Mr. RIDGELY. No; this represents the capital. This line [indicating] represents the United States bank notes. This line [indicating] represents the Canadian bank notes.

Mr. GILLESPIE. Our bank notes have more of the functions of money than the central credit notes of the Canadian banks.

Mr. RIDGELY. I do not see how it could do that.

Mr. GILLESPIE. Those banks are not allowed to pay out. That is the old Sussex system. When a note comes in they will send it back right away for redemption. It seems to me this plan ought to have the same feature, if you would get the full benefit of it.

Mr. WALDO. Mr. Gillespie, I think you are mistaken. They do not have to redeem the moment the note comes in. It is not the English system.

Mr. GILLESPIE. Here is the difference, Mr. Waldo: When it comes back to the bank of issue, they need not destroy it. They can use it again. But if it gets into another bank the other bank is compelled to send it back to the bank of issue. It is that way in the Scotch system.

Mr. WALDO. If that be true, it is not what we propose to do here. Is the Canadian system substantially the same as that of the bank of England?

Mr. RIDGELY. Oh, no; no. Bank of England notes are practically nothing but gold certificates.

Mr. GILLESPIE. That is the Scotch system.

Mr. WALDO. That can not be paid out by any bank except its own bank. Suppose you are the central bank that issues the notes, and the bank note comes to me at this point. Must I send it in for redemption to the central bank or pay it out as there is demand for it?

Mr. RIDGELY. I understand, as a matter of fact, they pay out nothing but their own notes. I rather think Mr. Gillespie is right about it; that the law requires it.

Mr. WALDO. If that be so, that would very largely compel this reduction of the issue in circulation whenever it was not absolutely needed.

Mr. RIDGELY. That is what I contend.

Mr. HAYES. I should think that the natural law would operate just as effectually as the statute. I should think that in the Canadian system it would be to the interest of every bank to send it in for redemption.

Mr. RIDGELY. No man will ever send in another man's note. He will pay out the note rather than go to the trouble of bundling it up and sending it back.

Mr. GILLESPIE. If you fix it in the statute, you would force the elasticity; but if you leave it to the banks, one crowd trying to get it in and the other crowd trying to get it out, these forces neutralize each other and your notes stay out. But if you have it in the law they send it right back to the bank for redemption, and then you would get an extension. I do not see how else you would get it.

Mr. RIDGELY. I do not think it is very essential to the system, but I see no objection to putting it in the law.

Mr. McCREARY. Coming back to the advantage of the State bank accumulating currency notes and holding them when they could have them redeemed with legal-tender notes, and the bank would have their credit-currency notes out, so as to avoid the tax. If a State bank was to gather in a number of credit-currency notes and hold them, there would be no advantage, because all that they do is to put them into the banks, and they would get their legal tender and have their reserve. If there was no advantage and no stringency, the bank would want to get them in and pay for them, to pay for them as they were put in. Is that so?

Mr. RIDGELY. Yes.

Mr. McCREARY. There would be no advantage in a State bank gathering in a number of credit-currency notes just to hold them.

Mr. RIDGELY. I think the interest would be the other way, especially if they could turn them into the nearest reserve center and get credit in Galveston, San Francisco, New York, or Duluth. That is a very important matter.

Mr. McCREARY. I was saying that the State bank would have no advantage in gathering them and holding them any more than the other bank would have in holding them out. They would want to save the tax.

Mr. RIDGELY. No; there is a provision in the national banking act now against hypothecating notes, which could be applied to this and perhaps made more stringent.

Mr. CALDERHEAD. The restriction in the national bank act against hypothecating notes should certainly apply to these notes.

Mr. RIDGELY. Yes; it certainly should. Section 5203 reads:

No association shall, either directly or indirectly, pledge or hypothecate any of its notes of circulation for the purpose of procuring money to be paid in on its capital stock, or to be used in its banking operations, or otherwise; nor shall any association use its circulating notes, or any part thereof, in any manner or form, to create or increase its capital stock.

That principle ought to be applied more particularly to these notes than to the others, and that can easily be made so that there should be no danger of any large amount of it being pledged in that way and kept from redemption and kept out of circulation, but still nominally in the circulation, by so doing. Of course a man by fraud might occasionally get a few hundred thousand of them in that way, but the amount would be so small as compared with the total of the circulation that I do not think that could be considered as a serious matter.

Mr. WALDO. It was suggested by the Secretary of the Treasury yesterday that these notes, all of them, both the national-bank notes and these credit notes, as we will call them, should all be of exactly the same form and the same appearance.

Mr. McCREARY. The Comptroller has touched on that. He said that they should be.

Mr. RIDGELY. Yes; I agree with the Secretary on that, not only on account of the form being the same, but the practical advantage in the way of printing and handling them would be very great.

Mr. HAYES. If that were done, there would be no difficulty in listing them for taxing purposes?

Mr. RIDGELY. I think not. The total amount out less the bond secured. Yes; we could fix that. There would be no difficulty in arriving at that in the Treasury Department in the bookkeeping at all.

Mr. WEEKS. That would decrease the expense?

Mr. RIDGELY. Yes.

Mr. McCREARY. And facilitate the issue?

Mr. RIDGELY. Yes; my end of it. For instance, the actual handling of the pieces of paper would be greatly simplified. And another thing. I have got, I think, to-day 153,000,000 or 154,000,000 of these incomplete notes in one vault. If you are going to have them of an entirely different kind I would have to have another vault twice as big as this room with these notes in it, and room is scarce at the Treasury Department, especially vault room. We could probably get along with no more actual sheets of paper than we have now.

Mr. POWERS. What inducement would a savings bank or a trust company have to ship these credit currency notes to its agent in Boston or New York, wherever the reserve or redemption city is, unless it wished to transfer currency to that city to make a remittance there?

Mr. RIDGELY. Not necessarily to transfer currency?

Mr. POWERS. No.

Mr. RIDGELY. It would have no inducement, unless it wished the currency there.

Mr. POWERS. Now, if it had no more currency than it needed to conduct business and pay the checks of its depositors and in order to do its business, why should it not as readily keep these notes which pass currently as money as go to the trouble of bundling them up and be without the money for twenty-four or forty-eight hours in order to bring back another currency which would be no more effective and no better?

Mr. RIDGELY. I think some of this would stay in the cash drawers of the State and savings banks in that way. Not many of them would.

Mr. POWERS. You think the Secretary of the Treasury was wrong when he thought a very large percentage would fail to get back?

Mr. RIDGELY. I have not heard him make that statement. If he did, I disagree with him.

Mr. POWERS. He thought the amount that would lodge in the hands of the people and remain in the savings banks, and so on, there would be very large, and he thought there would not be over 15 per cent of it get back.

Mr. HAYES. Twenty-three million dollars.

Mr. RIDGELY. I think there would be much more than that. If they lodged in the hands of the people, it seems to me that is what you want. The average man carries about so much, five or twenty or fifty dollars, or whatever it may be.

Mr. POWERS. Is it not a fact that in the country, where there is a good deal of sending of currency through the country, there is not near as much of shipping it from the country to the money centers? Does it not get back through the pockets of the people rather than by express, rather largely? We ship \$10 down where we have to have one brought back.

Mr. RIDGELY. You say that the money goes to the country all the time and comes back through the pockets of the people?

Mr. POWERS. I mean more currency is shipped to the country than is shipped back.

Mr. RIDGELY. Yes.

Mr. POWERS. This currency is sent back. Checks are sent back.

Mr. RIDGELY. I think the balance would be, as you say, all the time.

Mr. POWERS. The currency drifts back through the pockets of the people, in one way and another.

Mr. RIDGELY. I do not think it drifts back so much in the pockets of the people. A portion of it does. The proportion used in that way all the time is a very constant quantity. If you will turn to my report, page 50, you will find there that I have given a table showing the total of coin and other money not in the Treasury or in banks from 1892 to 1906. The amount that is in the Treasury as assets and the amount of that is in reporting banks and the amount that is not in reporting banks is given. See how it runs. The amount in the Treasury varies more than anything else. It varies from 7 to 16 per cent of the whole. The amount in the banks stays pretty steadily along in the low thirties. The proportion of currency that is out, that stays in the banks, is quite uniform. The same is true of the amount that is in circulation not in the banks or the Treasury.

Mr. POWERS. That is, the national banks?

Mr. RIDGELY. All banks.

Mr. POWERS. All the banks of the country?

Mr. RIDGELY. Yes.

Mr. POWERS. You have the trust companies and everything else there?

Mr. RIDGELY. Yes.

Mr. PRINCE (acting chairman). Are there any further questions on the currency plan?

Mr. GILLESPIE. If you have this currency identical in form and appearance with the other, what is the difference between the system proposed, and then in place of allowing national banks to take out the face value of their bonds in currency? It would increase that, in place of from 100 per cent to 125 per cent probably—you suggested 50 per cent—150 per cent, with the promise that they shall carry the reserve to take care of the redemption of the excess?

Mr. RIDGELY. That is it.

Mr. GILLESPIE. That is your proposition substantially?

Mr. RIDGELY. Exactly.

Mr. GILLESPIE. As to taxing these credit notes, is not that in principle the same as taxing the deposits? We have a bill introduced by Mr. Underwood, of Alabama, requiring that all deposits be taxed a very small per cent in order to protect the depositors. The holder of a credit note stands in the same position as a depositor or ought to. The one holds the right to check. Now, is not the principle the same, and if you have the right to tax the one you ought to have the

right to tax the other; and if the one ought to be free the other ought to be free also.

Mr. RIDGELY. There is no question about the right to tax. That has been done.

Mr. GILLESPIE. Yes. Now, would not the same motive of public policy prevail? I am opposed to a tax. I think all these restrictions ought to be taken off. I think this tax of 2 per cent is too high if we are going into a proper system; but the principle is the same in regard to the notes and the deposits?

Mr. RIDGELY. As far as the notes are deposited they are practically identically the same thing.

Mr. PRINCE (acting chairman). Have you anything further, Mr. Gillespie?

Mr. GILLESPIE. I believe that I have nothing further.

Mr. PRINCE (acting chairman). I think the Comptroller said he wanted to make some suggestions aside from this.

Mr. RIDGELY. In reply to a question raised just now by Governor Powers, I had a still further division of this table on page 50 of my report, showing the kinds of money in circulation not in the banks or the Treasury. It shows that there is \$1,728,000,000 in circulation not in the Treasury. Of this \$515,000,000 is gold coin, \$188,000,000 gold certificates, \$53,000,000 is silver dollars, and \$370,000,000 silver certificates, \$91,000,000 subsidiary silver, \$81,000,000 Treasury notes and greenbacks, and \$511,000,000 of national-bank notes.

Mr. POWERS. The object of my question was simply to see if there would be any such inducement to these savings banks and trust companies to forward this money to redemption centers as to cause it to be elastic, and to be redeemed rather than the other. That is what I was driving at.

Mr. RIDGELY. I think there would be a great deal more in the case of trust companies than in the savings banks. The ordinary savings bank carries very little currency and handles very little money. The money that a savings bank receives is always sent forward for deposit. You, Governor, are a savings-bank officer and know a great deal more about this than I do. The savings bank receives money and it is always sending it forward for deposit. It does not keep it in its own vaults a great deal.

Mr. POWERS. No; but it has considerable that way.

Mr. RIDGELY. As a rule the savings bank does not have much actual cash on hand.

Mr. POWERS. I was on the board of directors of a savings bank for several years.

Mr. RIDGELY. We do not have what you would call a savings bank in Illinois.

Mr. POWERS. No. We collected the money from A, B, and C, who wanted to make a deposit, and we loaned it largely on mortgages and on good collateral, and we put out a great deal more currency than the national bank or trust company, right out on these loans.

Mr. RIDGELY. But do you often pay out the currency? When a man comes in and gives you a note for a thousand dollars and makes a mortgage, does he often take away the notes?

Mr. POWERS. I think that when one of our savings banks makes a loan to a man he generally takes the currency. He generally takes the currency or a check on Boston.

Mr. RIDGELY. That would not be my experience.

Mr. POWERS. Because we have the currency.

Mr. RIDGELY. My experience is that you generally deposit with some national bank that allows you interest on your balance.

Mr. POWERS. I understand; some of the savings banks deposit with the national banks right in the same town.

Mr. RIDGELY. They deposit all the currency they get the day they get it with a national bank or a trust company that gives them interest on it, so that when they come to make a loan they very rarely pay out the currency, unless it is a very small loan, fifty or a hundred or two hundred dollars. They give a man a check on the national bank, and he goes over there and gets the currency if he needs it.

Mr. POWERS. That is true where they make a deposit in a local bank; but this savings bank had only about a million dollars, and we ran our own local machine, and we kept the deposits in Boston, and we took in the money day by day and made loans on it in cash.

Mr. RIDGELY. I do not think that is customary.

Mr. POWERS. But I do not think, myself, that there would be any great inducement for savings banks or trust companies to remit this currency and lay out of it several days.

Mr. WALDO. You are in a primitive condition up there, Governor.

Mr. RIDGELY. I do not think there would be much; but that must be a rare case, and the amount of it must be very small.

Mr. SHARTEL. It would remain out and would be a permanent addition to the currency.

Mr. CALDERHEAD. It would be, anyway, in the end.

Mr. GILLESPIE. Like a national-bank or a National-Government currency. In other words, paper money. In other words, the elasticity would not be in it.

Mr. RIDGELY. Do you want me to go on through this plan?

Mr. PRINCE. (acting chairman). No; I think you suggested that you wanted to make some observations.

Mr. RIDGELY. Yes.

Mr. PRINCE (acting chairman). We would be glad to hear from you along those lines.

Mr. RIDGELY. I wanted to say, I was looking over my report last night as to the condition we are in to-day, calling for a large amount of reserve money and a large amount of credits to be loaned, which has increased the rates of interest very decidedly. This is true. Of course we see every few days about the rates of call loans in Wall street; they go up to 30 or 40 per cent. That, I think, is not the critical point. That is not the important thing except so far as it may affect the rest of the country. We need not be greatly concerned about what these rates are on the few loans that are made that way. These rates are not paid on the great volume of even street loans, and they do not greatly affect the loans throughout the country, and the commercial loans. I do not believe they affect them at all. That is not where the scarcity of money manifests itself, but is only a sort of indication or quotation of it.

The difficulty we are in this fall, I think, is a great deal more than our annual crop moving stringency. I think we are face to face with a world situation now, that the business of the world is so active, and there is so much going on in the way of manufacturing and mining and commercial business everywhere, that there is a demand for a

great volume of credit that has caught up with, and perhaps overtaken, the amount of reserve money that we have to base those credits on, and in looking up this subject last night I made these notes on the loans of the national banks as compared with 1900. I find that since 1900—that is, comparing 1900 with 1906—there has been an increase of 68 per cent in the loans in the national banks with collateral, that is the ordinary commercial or farmers' loans, the loans to the man who comes in and gives a one-name note or a two-name note to buy his fall stock of goods, or to buy some cattle to feed, or some raw material for his factory to manufacture into the finished product, or who has got some finished product made up, and he says "My market will not quite take this, but I will give you my note until I move it off in the spring."

I find there is an increase of \$1,070,000,000 of that class of loans, or 68 per cent of the total. In the same period I find there has only been an increase of \$544,000,000, or 49 per cent of the total of the loans on collateral. I think those figures are very significant. In six years there has only been an increase in the volume of loans on collateral of \$544,000,000, or 49 per cent. Those loans on collateral include all the loans of the New York banks, which would include all the Wall street call loans that are held in the national banks. At the same time, as I read a moment ago, there has been an increase of \$1,070,000,000, or 68 per cent, in these commercial loans on time—one, two, or three name paper. It seems to me that is an indication that the stringency in money there is now is much more largely due to the demand for this money for the ordinary business transactions, the transactions of farmers and merchants and manufacturers and miners, than it is to the demand of the speculative community.

Now, in the late summer and fall of the year there comes this demand for crop-moving funds. That means two things: First, that there must be more currency sent out to conduct the ordinary cash transactions, and next there must be an increase in the loans to the men who do this business by check. That calls for an increase of reserve, while the demand for the currency calls for a decrease of reserve. Therefore it seems to me it is very plain that the logical, efficient, practical way to meet that problem is to change our system so that the banks can keep in their vaults as a basis for the increase of loans every dollar of this available reserve money and let them supply what is needed for cash transactions in their own credit notes, which are not available for the reserve, and in addition let them keep in the banks the money as a reserve for those notes. I believe if we had a system of that kind in operation here the amount of money which was needed for the crop-moving period would be supplied in that way with little or no disturbance to commercial credits. I believe if that was in operation a man need not take into calculation very much whether he wanted money in the spring or the fall; that it would simply be the turning of deposit credits into bank credits and note credits into deposit credits.

It has been urged against this addition to our bond-secured currency of this volume of uncovered notes that it means expansion and inflation. It is impossible to say how much of that there would be, but there will be some. The volume of these credit notes which goes out, the average volume which the banks are able to keep out, will to a considerable extent, almost to the full amount of it, replace in the

circulation money which can be used as a reserve. That is, it will increase our reserves practically by the average amount of this which may stay out, less such an amount as must be kept in the banks as a reserve for the notes themselves.

Mr. GILLESPIE. It would expand credits in proportion?

Mr. RIDGELY. That will expand credits in proportion; I think that is one of the advantages of this plan. I think those credits ought to expand. I think when a man has raised wheat, corn, hogs, and cattle, he has got the basis of credit on hand, and there is no harm in increasing the amount of those loans. I think the best way on earth to gauge the amount of that, and the location of that increase in credit, is the relation of each banker with his individual customers. He knows which of his customers, from intimate knowledge of the men, has got a good farm, who has raised a good crop, and who has not. He knows who is trustworthy and reliable. It is his money that is loaned, and he has a gauge of the men it should be loaned to. I think the situation to-day, when we are paying the rates we are, as the result of the demand for money to conduct a highly prosperous business, demands some expansion of our credit, and if we can get the reserve money, money which should properly be used as a reserve, into the banks as the basis of those credits, we can trust the banker to gauge his credit just exactly in the right way, and the composite result that will come to the whole country by the judgment of each individual banker in his relation with his own customers is the best way to relieve any tension there may be in the money market, and to regulate this whole question of credit. I believe it is infinitely better than the regulation of any central bank could be, any agreement between thirty or forty banks could be, if they have such a thing in Canada, or any regulation of the Secretary of the Treasury.

Mr. GILLESPIE. Right there, is not that based upon these principles as stated by Mr. Conant, and when we depart from these principles we leave this entire system and get into dangerous ground? He says this, that the entire argument in favor of a bank-note currency rests, however, upon the fundamental condition that convertibility of the notes into coin shall be maintained without delay, doubt, or obstacle, and that adequate means shall exist for maintaining such a convertibility.

Mr. RIDGELY. Yes; I agree with that exactly.

Mr. GILLESPIE. There must be the reserve to meet it. The banker is expecting that note to come back. This expectancy forces him to keep up his reserve.

Mr. RIDGELY. He will keep that whether you put it into the law or not.

Mr. GILLESPIE. Yes; I suppose so, but if you give that note the quality that will enable it to go out over the country and stay out a month of six months and become a part of the money of the country, that is paper money. We have paper money in this country, and you would depart from the principles laid down by Mr. Conant and get into dangerous ground there?

Mr. RIDGELY. I do not see any departure from them.

Mr. GILLESPIE. You have stated it correctly, but the effect of the provision stated by the bankers was to give it a function of national currency, and doing that and putting the Government behind it is an entirely different thing, and you are going on an entirely different

principle from that which is laid down by Mr. Conant and that you have just been arguing.

Mr. RIDGELY. I can not see the difference.

Mr. PRINCE (acting chairman). No; I do not either.

Mr. GILLESPIE. This would provide in this way: If I am a banker and you come in and want to borrow, I can give you a deposit credit, let you draw a check on it, or I can give you my notes.

Mr. RIDGELY. Yes.

Mr. GILLESPIE. You stand in the same relation to me in both senses. I am to keep the same reserve, and I am to be ready to meet those notes whenever presented, and I am expecting them to come back either the same day or the next day.

Mr. RIDGELY. Yes.

Mr. GILLESPIE. But if I give you notes that you can send to New York, and the New York banks are allowed to pay those notes out over their counters and send them to Tom, Dick, and Harry, all over this country, who would keep them out, is not that an essential departure from the system of credit currency advocated by Mr. Conant and the other students of this question?

Mr. RIDGELY. Yes; if your assumption is right when you say it would keep them out. I do not believe it can keep them out. I do not believe those notes can stay out at all, with the redemption facilities against them. Look at my report, and for years you will find that 46 per cent of the redemptions of national-bank notes come from New York City. It would be idle for a man in this city to send his notes to New York City. They would be in Washington the next morning, or in a subtreasury the day they got there.

Mr. GILLESPIE. But it would be all right if the man sent his notes to Fort Worth, Tex., and instructed his correspondent there to send them out among his customers and instructed him that when they came in he was to send them out again. That condition is perfectly feasible under this.

Mr. RIDGELY. I do not think so at all. In the crop-moving season, when there was a demand for currency in Texas, they might be used in that way. As it is now a banker in a small town in Texas has a demand for more money than he can furnish to handle the cotton down there, and he borrows money in New York to do it.

Mr. GILLESPIE. Not right now, because the cotton is sold and the banks are running over with money.

Mr. RIDGELY. I mean before the cotton is sold. Suppose he needs money, he gets it from New York. He may borrow it in St. Louis or Chicago, but we will say that he gets it from New York.

Mr. GILLESPIE. Yes.

Mr. RIDGELY. The first thing he would do when people began to present their check on it, he would pay out his own notes; and if that would meet the demand that there was in that little community, that would be the end of it. The next thing he would do would be to draw checks on New York and ask the New York banker to remit him his balance that he had been keeping there in the spring and summer. The first thing the New York banker would do would be to send him these notes; if he could, if he had any more reserve-issuing capacity.

Mr. GILLESPIE. But that man would not want them if he could issue his own notes.

Mr. RIDGELY. No. He will issue his own notes first, and next he will issue the other notes that will come to him. And the very day somebody got through with using that note for his cash transactions he would put it in some bank in that town or somewhere over in Oklahoma or Indian Territory. If he did not, he would pay it out to some hotel keeper or storekeeper, so that it would find its way to the bank in some way. If there was a demand in that community, if they wanted it for the cash transactions, it would be paid out again; but as soon as that demand slackened, it would be sent to the nearest redemption agency, there to be redeemed.

Mr. GILLESPIE. You mean a demand for money, not for bank-note currency.

Mr. RIDGELY. For any currency that will answer for current cash transactions.

Mr. GILLESPIE. If you want more money in circulation, I grant that you are correct. But if you simply want to provide these conveniences and not to expand the volume of money, and the conveniences of handling money that this system provides, I think you are not correct, because if the people want more money, if that is the demand, they will keep it out.

Mr. RIDGELY. I do not see the distinction.

Mr. GILLESPIE. When it gets into these banks it has got to be sent in for redemption.

Mr. RIDGELY. Yes.

Mr. GILLESPIE. There is elasticity.

Mr. RIDGELY. Yes.

Mr. GILLESPIE. Your plan does not give that elasticity. Those notes can float around anywhere in the world.

Mr. RIDGELY. How will they float around? What will become of them? The bank has no way of issuing currency except by paying cash. The bank has a little expense for rent and for fuel, but that is trifling. The only way the bank can get currency out is by paying checks with it. We have had a currency in circulation so long that was Government currency that our idea of paper money has become perverted. We authorize currency and it goes out and stays out. We have never had a currency under these circumstances. If the Government issues a greenback and it comes back, the Treasury is compelled by law to send it out again.

Mr. GILLESPIE. The law keeps it out among the people, and you want to reverse that in this system and compel people to send it in for redemption.

Mr. RIDGELY. That is what I claim we have done in this system that I am advocating.

Mr. GILLESPIE. It seems to me that is the very qualification that the national-bank note has, to be paid out anywhere by any bank and compel them to receive it. If that is not greenbackism, I do not know what it is.

Mr. RIDGELY. These notes are not legal tender.

Mr. GILLESPIE. No, but practically; practically the bank note now is legal tender.

Mr. RIDGELY. No, no, no.

Mr. GILLESPIE. Not legally; but do you not know that the people will take any sort of money without looking at it, if the banks over the country are compelled to take it?

Mr. RIDGELY. Yes; that is all right so long as they want to carry it around in their pockets for their cash transactions; but, as a rule, anybody that has any money, if it goes over what he may habitually keep in his pocket, puts it in a bank.

Mr. GILLESPIE. If that bank was compelled to send that in immediately——

Mr. RIDGELY. The bank is better than compelled. It is its personal financial interest to do it. That is better than any compulsion. That is the best kind of compulsion, rather.

Mr. GILLESPIE. You would just leave it to the interest of the bank?

Mr. RIDGELY. It is to the interest of the bank to send it out.

Mr. GILLESPIE. You have 6,000 national banks to whose interest it is, because there is profit in it. Their interest is to keep their money out, because there is profit in it?

Mr. RIDGELY. Yes.

Mr. GILLESPIE. That very same bank has an interest to shove it back, because it wants to get its own notes out?

Mr. RIDGELY. Yes.

Mr. GILLESPIE. Now, you have those two forces neutralizing each other, and the money stays out, and it is not the Scotch or Canadian system.

Mr. RIDGELY. I do not believe that. I do not think the forces will neutralize each other at all. Here is one fellow trying to pay his notes out. Do you think he can neutralize the efforts of the other 5,999 banks trying to get them back? Is it likely that those forces will neutralize each other?

Mr. GILLESPIE. No; but the 5,999 are trying to keep theirs out.

Mr. RIDGELY. Yes; each fellow tries to keep his own out and to send in for redemption the notes of the 5,999 others.

Mr. GILLESPIE. He has the same force to keep his own out that he has to drive the other fellow's in.

Mr. RIDGELY. Oh, no.

Mr. WALDO. The conclusion is that if it is not needed it has got to come in.

Mr. RIDGELY. Yes. That is what happens in every other country where they have such a circulation and exactly what will happen in this country.

Mr. GILLESPIE. It is not the other system. You talk about a State bank getting hold of this stuff and holding it just like it will a national-bank note when there is no incentive for him to send it out. But if the law was that he could not pay it out he would send it in, like under the other system.

Mr. WALDO. As I understand the suggestion, it is that a natural result of the adoption of this plan will be to take the quality of reserve away from these Treasury notes.

Mr. RIDGELY. Yes.

Mr. WALDO. Is not that your idea?

Mr. RIDGELY. Yes.

Mr. WALDO. That would be the natural result, so that the State banks would have at least one of the motives to send them in.

Mr. RIDGELY. And the fact that they could be used to make exchange anywhere in the United States on twenty-four hours' notice. I do not know how many of you gentlemen are bankers here, but you get in among the bankers, especially the younger fellows who

sit at the desk and the thing they talk about all the time is exchange, exchange, exchange. That is on their minds all day, and that is what they are keenest after—to transfer money here and there and yonder, and save a sixteenth of 1 per cent. That is so simple and easy a proposition to a man that has handled that sort of thing and has been up against it, the necessity of keeping a checking reserve in Chicago, St. Louis, or New York. Or perhaps there comes an unusual demand, some fellow has gone to California or Dakota to buy some lands, and he has got to accumulate some exchange. That is the greatest inducement that you can put on a man engaged in banking operations, to give him something that will make his exchange accounts good.

Mr. GILLESPIE. Suppose you remove this \$3,000,000 limit on the Treasury note, and you leave out the bond question, how much retirement do you think there would be under present conditions—how much elasticity?

Mr. RIDGELY. In our present bond-secure notes?

Mr. GILLESPIE. Yes.

Mr. RIDGELY. I do not think there would be any at all, except as they were influenced by the price of bonds. Our present notes are entirely unresponsive to the demands of business.

Mr. WALDO. If you took out that inducement, the national-bank notes would be retired?

Mr. RIDGELY. They would be retired more than they are now. Our only inducement to-day is the price of bonds. If a man thinks bonds are going up, he wants to get those.

Mr. WALDO. Under the present system of the bond-secured currency is it not?

Mr. RIDGELY. No.

Mr. WALDO. Now, why should they retire if the bond system is the only question that would force the retirement of that present bank-note currency—when that does not attach to the new issue, why should they retire?

Mr. RIDGELY. I am not talking about retirement. I am talking about the daily redemption, and the difference between redemption and retirement is very great. I do not care whether they retire or not.

Mr. WALDO. Then, if you do not want retirement, you want a permanent currency.

Mr. RIDGELY. No; I want it kept up all the time by redemption and reissue.

Mr. WALDO. Redemption is not retirement, and redemption does not end the currency.

Mr. RIDGELY. I want it to go out the next day, if the people want it again. If they will not take it and want to leave it on deposit, I want it to run down exactly as in every other country where they have a credit currency.

Mr. PRINCE (acting chairman). Is that all?

Mr. GILLESPIE. Yes; that is all.

Mr. PRINCE (acting chairman). Have you any further suggestions?

Mr. RIDGELY. No, sir; I think we have covered the ground pretty thoroughly. The only other thing I would like to say is that I feel the necessity of this thing, and it does not come from the banks at all. As far as the banks themselves are concerned, they are entitled

to no further facilities—they are entitled to no further profit. They are not greatly interested in this thing.

I think that the banker, except as he is interested in the prosperity of the whole country and the prosperity of his customers particularly, is better off without this than with it; but as far as he is interested and affected by the stability of conditions, the stability of interest rates, the stability of the business of his customers, he will get the advantage of this proposed legislation making the currency elastic; but I think the man on the farm, the man in the factory, the man in the mercantile business, the man who has got any sort of a plan to build an irrigation dam, a building, a sawmill, to run a little trolley line or anything of that kind, who finds himself absolutely stopped from doing anything of that kind, because money gets tight and interest rates go up and nobody knows how much liquidation is going to be produced, and people are afraid to loan him the money, is the man who is going to be benefited. Within forty-eight hours I had an incident related to me of a man who wanted to go into two different things. One was an irrigation scheme in the West and the other, I think, was a rice-growing scheme in Texas. He wanted to buy some land and join some other people in two improvement enterprises of that kind. He had \$2,000,000 of first-rate public-utility bonds, bonds that have been selling along from 94 to 98. Ordinarily he had assumed, as a matter of course, that he could borrow some money on them. He tried in New York and could not get the money at all. Finally he borrowed the money in London and paid 7½ per cent and a quarter commission for that money for a year.

Now, I think it is the man who wants to do that sort of a thing, and the people who are interested in having that done in their communities, and people who would go and do the work on that irrigation scheme or that sawmill or that trolley line or that rice farm, they are the people who would get the benefit of this thing, and it is because I believe it is to the interest of the whole country and of that class of people that I advocate this thing as strongly as I do. As far as the bank goes, that cuts no figure in my mind at all. They are not entitled to this. But I do think that every man, woman, and child in the United States is interested in this currency, and because they have so vital an interest in it I advocate it as strongly as I do.

(At 1.30 o'clock p. m. the committee took a recess until 2.30 o'clock p. m.)

AFTER RECESS.

COMMITTEE ON BANKING AND CURRENCY,
HOUSE OF REPRESENTATIVES,
Saturday, December 15, 1906.

The committee reassembled, pursuant to the taking of recess, at 2.30 o'clock p. m., Hon. George W. Prince (acting chairman) in the chair.

STATEMENT OF MR. WILLIAM H. BERRY, TREASURER OF THE
STATE OF PENNSYLVANIA.

Mr. PRINCE (acting chairman). What is your official position, Mr. Berry?

Mr. BERRY. Treasurer of the State of Pennsylvania.

Mr. PRINCE (acting chairman). You have been asked by telegram to appear before the committee to-day. Will you be kind enough to give your views relative to this legislation.

Mr. BERRY. I see the necessity of being brief, gentlemen, and I will proceed at once to the matters that I thought might be of interest to you. The proposition of the bankers' commission or convention appears to me to be in some particulars right; in the main, however, I think, wrong. I notice here they say:

A bank note is essentially the same in principle as a deposit payable on demand.

With that paragraph I agree heartily. Then another thought which should be connected immediately with it:

Banks should keep the same reserves against credit notes outstanding as are now required by law against deposits.

These two propositions, to my mind, taken together, bring the question at once to an issue. The difficulty the country now is facing is the lack of reserve funds. That is what is the matter all over the United States—the lack of money to stand in the banks as a reserve, as a basis of expanding credit. Therefore, in my opinion, it will be practically impossible to issue this currency. I do not anticipate that if this law were passed it would result in any practical increase of the bank circulation. My judgment about the matter is that what is needed, and I agree heartily with the Comptroller, is an increase in money in the country that will stand in the bank reserves.

As has already been pointed out, we have increased our stock of money 100 per cent in the last nine years, and gained in the population 50 per cent. This has given a stability to prices and a firmness to credits which has encouraged industry and commerce to a very great degree. Nothing else that I can discover in the whole business horizon can be cited as the cause of the phenomenal industry, not only in this country, but in the world at large. An increase in the world's supply of money has led to a phenomenal increase in business, and made possible a speed of production and a general activity that has not obtained for a generation.

We have, however, come to a point in the development of the country where it is impossible to handle the business. The railroads are overwhelmed. They have not sufficient trackage, they have not sufficient cars or sufficient locomotives, or sufficient terminal facilities or of equipment generally to handle the business to-day. They are under the necessity of increasing their facilities, and the activity along these lines, of course, and other general lines leads to a demand for credit, a demand for money upon which to expand credit throughout the country which is imperative. It has been shown in the two examples that were cited by the Comptroller that credit can not be obtained, no matter what the securities are that one may have to offer. We are in a condition where the wealth of the country, the capital of the country, is abundant. We have no lack of capital. We have any quantity of capital—accumulated property other than money. The difficulty, however, is the lack of liquid capital, or currency, which is absolutely necessary in the conduct of any industrial or productive enterprise.

Now, our currency, which is an essential element in all of our business relations, is divisible into two parts—first, our money, and, second, our credits. The credits are to the money perhaps as 9, at least, or possibly 10 to 1, variously estimated, and the business of the country is largely carried on with credit instruments of one kind or another. These credits are furnished by the banks. They are furnished by the banks in proportion, in absolute proportion, to the amount of actual legal-tender money that the banks can segregate in their vaults as reserve. The limit of credit has been reached and we have got to a point where the banks can not secure the necessary reserve with which to further extend credits, although absolutely gilt-edged security may be offered. Some of the imperative cases lead men engaged in speculation to bid phenomenally high rates of interest, but the fact remains that the necessary expansion of the business of the country is impossible without a further expansion of credit, and this can not occur without an increase of the reserve currency of the country.

My opinion about the bank notes, of course, is, first, that just as far as they are able to displace legal-tender currency in the pockets of the people and allow it to flow into the banks and there become a reserve upon which credits may be extended that are useful and can be and will be issued. Further than that bank notes can not be and will not be issued, no matter what the privileges given to the banks, and my main objection to this proposition is that it affords no remedy for the present trouble. It will not, in my judgment, affect the situation appreciably. It will and does expand the currency up to a certain point—up to that point to which you can induce the people to hold this money in their pockets or in their tills or in their daily transactions—up to that point it is useful, because it lets loose the legal-tender money that would otherwise be held, and that legal-tender money goes back to the banks and there remains in the reserves as a basis of credit. At this time I am satisfied that bank currency is already overissued. The fact that \$300,000,000 of it was redeemed this last year is, to my mind, proof conclusive of that fact.

The practice in banks with which I am personally acquainted is to separate the bank notes from the legal tenders and immediately pay them out over their counters or send them in for redemption, because they will not stand in reserves. Bank notes are received on deposit and reserves are necessary to hold against them, and they send them immediately back to get the coin or the legal-tender money that will stand in their reserves against deposits.

Now, while I profoundly agree, and perhaps am even more fully impressed, with the necessity of some action, I rather fear that, in view of the fact that the great mass of bankers of the country seem to think that this is a remedy, it will have to be tried. I fear this trial, not for any harm the trial may do, but because of the delay of the really necessary reforms while in wait for this. My firm conviction is that it will be an abortive trial, that it will not accomplish the desired result. First of all is the difficulty of getting reserves against which to issue notes. There is not sufficient reserve now to hold against deposits of commercial credit. A man may go with Government bonds to deposit as collateral worth dollar for dollar and he can not borrow money. That is the difficulty.

Bank notes are a credit of the bank just the same as a deposit, and require a reserve against them just the same as the deposits do; and therefore the impossibility of securing reserves will put an absolute check on the issue of this money. What the country wants to-day is more legal-tender money of some kind, in my judgment. Now, so far as the details of this plan of the bankers are concerned, I would say that I see a way in which it is possible for the national-bank currency to be measurably increased, and that would be by reducing the denominations, issuing it in ones and twos and a larger proportion of it in fives, in order that it may more perfectly and fully displace the silver certificates and other small money which is now in circulation in the hands of the people, and allow the legal-tender money to remain in the banks as a basis of credit or to stand in the reserve.

Unless you do that, and unless the banks, as, by the way, many of them now do, segregate and separate it and put it out in preference to paying out their legal-tender money, I see no way in which you can seriously or measurably increase the amount of the bank-note circulation. It comes back to the banks. It is an immediate source of weakness. It is a legal tender from the depositor to the bank. They must give credit for it, and reserve must be found to stand against the deposits. That is the constant difficulty with it.

The bankers' commission say:

The provision of existing law limiting the retirement of bond-secured notes to \$3,000,000 a month should be repealed.

I myself think that this is a mistake, although if the national-bank note is considered simply as a deposit, a certificate of deposit, that objection might not hold. I would not wish to urge that particularly, but I would say that so far as legal-tender money is concerned, there ought to be no provision whatever for the retirement of a single dollar at any time. I think it can work nothing but harm, absolutely.

I have compared the statistics furnished by the various departments for many years past, and I discover that the amount of money in circulation in the United States is an accurate index to the amount of wealth of all kinds which is held, and the circulation stands, and has stood since the establishment of the national banking system in this country, at a ratio about 1 to 50. That is, if we have \$1,000,000 of circulation, we will have \$50,000,000 in the country of wealth. If we have \$2,000,000,000 in the country in circulation, we will have a hundred billion dollars in property. Therefore the fact that those two things follow one another and bear that relation constantly to each other is to my mind in itself a witness to the fact that there is a law, a fundamental law, back of it which operates to establish this ratio, and the philosophy of the situation would also indicate this. Therefore for every dollar that we withdraw from the currency \$50 of the valuation of the property of the country must disappear. The property will not disappear, but the valuation of it will. The debt-paying power of the property will disappear in that proportion; therefore there should be no provision whatever for a contraction of the currency.

There is one passage in these recommendations which I desire to fully indorse, and that is that the Secretary of the Treasury be authorized to turn the daily receipts of the Department into the banks, so that it will not be withdrawn from circulation as it is when

it gets into the Treasury of the United States or into the treasuries of the States. When thus withdrawn it ceases to be a factor in the maintenance of business and credit; and to that extent, to the extent that the United States Treasury has impounded cash, it has contracted the currency and has limited the business possibilities of the people.

Mr. GILLESPIE. Right there, would you have the banks keep a reserve against the Government deposits?

Mr. BERRY. I would have the bank furnish an absolute security. I think the system we pursue in Pennsylvania is ideal.

Mr. GILLESPIE. The plan here is to deposit the money without security.

Mr. BERRY. I do not believe in that, nor do I believe in the 2 per cent interest rate. I believe that the money should be deposited where the demand for it is greatest, as evidenced by the amount of interest that the banks are willing to pay for it. That is one of the defects in our Pennsylvania system, in my judgment. We have the other feature. We impound no money whatever in the State treasury. We deposit immediately in some bank in the State.

Mr. GILLESPIE. What is the rule as to distributing deposits, as to what banks you shall prefer and give it to?

Mr. BERRY. It is up to the treasurer. It is merely a matter of choice.

Mr. GILLESPIE. It is a question with the treasurer?

Mr. BERRY. Yes; except that he is limited in the maximum amount that he can deposit in any one bank, and he is required to have certain specified security for the money. But when the security is given the money is immediately deposited with the banks and is not withdrawn from circulation at all. The maximum of interest, however, is 2 per cent. That is the fixed rate that we receive from deposits, and as a consequence at this particular time, and most any time, the demand for that money is very great. Of course money is worth more than 2 per cent to any bank now, and the demand for it makes a contention between the different bankers in the State as to who shall have it, and it keeps the treasurer in constant hot water, and he has no index as to where it ought to go—none whatever under that system.

If, however, we had a competitive interest rate, then the man who wanted it the most would pay the most for it, and would take it and would return the proceeds to the city or the State or the nation, as the case might be. I would therefore raise an objection to the fixed interest rate. But at the same time, insisting that absolutely satisfactory security be given for a deposit, I would recommend that all of the receipts of the Treasury from day to day be turned into the banks and kept in circulation. I think not only is that money necessary for the maintenance of our business at this particular time, but vast sums beyond that are imperatively necessary at this particular time, and the bank-note circulation will not answer that demand unless you make it competent to stand in the bank's reserve, and that I do not think any of you would desire to think about for a moment.

It is that thought and that only that I wish to present to you gentlemen. I have thought about the matter a good deal, and I am persuaded that this is the real necessity of the hour, and it is a ne-

cessity, a grave necessity. We shall be, I rather fear, up against the necessity of restraining production no one can say just how soon, but it may appear at any moment under the present condition of the market in the United States, and at any moment a slump of prices may begin that would entail the cessation of industry and necessarily set up a friction between employer and employed that we have so happily escaped for the last nine or ten years.

I would say just one word here, however. I will have to take issue just a little bit with the Comptroller in regard to that matter which is outlined here:

We find that the banks are under the necessity of parting with their reserve money to supply the demand for currency at certain seasons, although that demand would be quite as well satisfied if banks could supply their credit notes instead of depleting their reserves and causing a contraction injurious to business.

I think that statement is not true. My own observation and a fairly wide acquaintance in the West leads me to the conclusion that the demand that is being made persistently upon the centers for money in the outlying districts is not a demand for notes to pass from hand to hand in the shape of currency so much as it is a demand for legal tender that can be used in these outlying banks as a basis of expanding credit, because wherever you go throughout the West to-day you will observe that mills are rising and that irrigation projects are being carried on, and the country is developing at an amazing rate, and the demand is increasing in these outlying districts for an opportunity to liquefy assets—that is, to hypothecate general assets and establish credits upon them, depositing the credits in the bank—and to do this legal tender is wanted in these outlying banks and not bank notes. Bank notes will not answer that demand. Nor is the demand for crop-moving purposes a demand for hand-to-hand cash, excepting very slightly. It is a demand of the local dealers upon the local banks for credit to use in handling crops.

Mr. McCREARY. Do you think it would be a safe plan to offer your money to the highest bidder there?

Mr. BERRY. Yes; absolutely.

Mr. McCREARY. Has it shown itself so?

Mr. BERRY. We have never tried it.

Mr. McCREARY. Do you not find, in point of fact, that the banks that are clamoring for money from you are doing it at the rate of 2 per cent, and that only the weak ones would give you more than 2 per cent, while the strong ones would not give you but 2 per cent?

Mr. BERRY. No; I do not think that is true by any means. Some of our strongest banks are most importunate. Some of the apparently strongest banks have failed, but we suffer no loss, because of the special securities we hold.

Mr. McCREARY. Would they pay you more than they would pay another party?

Mr. BERRY. No, sir.

Mr. McCREARY. The rate that they pay now, the average rate that they pay to the country bank, is about 2 per cent—that is, for deposits as correspondents for them—on their balances.

Mr. BERRY. If that is all, that is all they would offer me.

Mr. McCREARY. That is the average rate.

Mr. BERRY. Yes.

Mr. McCREARY. Now, another thing. When they come in for a 2½ or 3 per cent rate, they are turned down, as a rule. Good banks and good banking will not admit of paying 2½ per cent.

Mr. BERRY. Many of the banks with which I am acquainted pay their depositors a higher rate than 2 per cent. Three per cent is common.

There is a difference in the value to a bank of an outside deposit of cash and a deposit of credit. If I borrow a thousand dollars on hypothecated security and deposit the proceeds, I have decreased the loaning power of the bank, but if I deposit \$1,000 in cash, I increase the loaning power of the bank—banks in general—by \$7,000. An original deposit in the bank of cash might, therefore, be profitable to the bank at a 3 or 4 per cent rate or more. I have some little acquaintance with the banking business, and I know that to be so. You might not be able to say that with safety of any one individual bank, but it is true of the banks at large. It might be profitable to pay 6 or 7 or 8 or even 10 per cent, because of the fact that \$1 in the reserve becomes the basis of \$4 to \$7 of credit. The rate at which the bank can loan its money is perhaps 5 per cent, but the banks loan it over three or four times, and get practically 20 per cent out of it.

Mr. McCREARY. The bank, however, that allows a check out on sight can not afford very well to pay more than 2 per cent. Now, the State banks and the savings funds, where they buttress themselves with a time to pay their checks, can pay, and do pay, more than 2 per cent. They pay 3 per cent.

Mr. BERRY. Yes; but the law of averages insures to all the banks that only one in six of its depositors will call for cash, so that my contention is still true.

Mr. McCREARY. Now, Mr. Treasurer, in the system which you have in Pennsylvania, which is a new system—

Mr. BERRY. No; it is not a new system. It has been in vogue there for several years.

Mr. McCREARY. It has been in vogue for several years for the depositing of the money in the banks.

Mr. BERRY. Yes.

Mr. McCREARY. Is there not a board that passes on this, and then it comes to you?

Mr. BERRY. There is a board that approves of a bank as a depository.

Mr. McCREARY. Yes.

Mr. BERRY. But after that it is up to the treasurer to distribute the funds.

Mr. McCREARY. But you could not distribute the money without the action of the board?

Mr. BERRY. I could not use a depository without the approval of the board, but I can distribute after the depository is designated.

Mr. McCREARY. That is what I meant.

Mr. BERRY. Yes.

Mr. McCREARY. Also in making depository banks for the State there is an absolute security required, either in bonds or by the indorsement of the directors.

Mr. BERRY. They give a bond, either a corporate or an individual bond, or collateral. We have deposits secured all three ways. But

we have absolute security, and of course that is the basis of the proposition, absolute security in every case no matter what the interest rate might be.

Mr. GLASS. In that event, with absolute security, does the matter of the strength or the weakness of a bank largely enter into the transaction?

Mr. BERRY. Well, scarcely, except secondarily. Probably a weak bank could get the security that would be required.

Mr. GILLESPIE. That bank would not get the money then?

Mr. BERRY. No.

Mr. GLASS. On the point spoken of by Mr. McCreary, it was suggested last winter on the floor of the House that you would have banks bidding against one another for the money and that the harder-up bank would outbid the more solvent bank.

Mr. BERRY. That might possibly be true, but my thought about that would be that the money would go where it was most in demand. Now, that is ultimately what happens to it. If I use the discretion that is vested in me and deposit \$100,000 in a bank in an outlying county, it does not lie there twenty-four hours. It slides right down to Pittsburg, where they pay more for it, and the bank reaps the difference. It goes there anyway. It ultimately goes where the highest rate of interest is. It will go there anyway.

Mr. McCREARY. How much interest annually does the State get?

Mr. BERRY. Our State?

Mr. McCREARY. Yes.

Mr. BERRY. Two per cent.

Mr. McCREARY. The point is, the aggregate of it.

Mr. BERRY. It varies with the deposits, of course. We get interest on every dollar of it all the time. We do not keep it a minute, and the interest is paid on daily balances.

Mr. McCREARY. Yes.

Mr. BERRY. The most of the money that we have out is in permanent deposits, practically. They lie for months and years. But we have six active banks which pay us the interest on daily balances. So that we have about \$13,000,000 of surplus, and we get about \$260,000 a year interest.

Mr. WALDO. Is there any such lack of reserves in this country that if the banks desired to increase their present circulation they could not get the reserves to stand back of it?

Mr. BERRY. That is my contention.

Mr. WALDO. Do you mean that the national banks could not increase their circulation beyond the 62½ per cent they have now?

Mr. BERRY. Yes.

Mr. WALDO. I have not heard any such thing as that before.

Mr. HAYES. Suppose in Mr. Gillespie's town, in Texas, under this system they desired to issue or put out, say, \$50,000 in currency to furnish money to the growers of cotton. If the law permits them to put out their own notes and the farmer would take them, he is only obliged to keep 15 per cent of a reserve as against those notes?

Mr. BERRY. Yes.

Mr. HAYES. Whereas if he did not have the notes he would have to put out the whole 100 per cent?

Mr. BERRY. Yes.

Mr. HAYES. Is not that an expansion of the currency?

Mr. BERRY. Yes.

Mr. HAYES. Is not that so all over the country?

Mr. BERRY. Yes.

Mr. HAYES. In that event he would only pay out 15 per cent.

Mr. BERRY. Yes. You pay out \$100,000 and you keep \$15,000 of reserve in the bank. The first thing you know those fellows will all come in there and lay that money down on your counter as a deposit.

Mr. HAYES. But they will not.

Mr. BERRY. But they will.

Mr. HAYES. It is the experience that they will not all come in.

Mr. BERRY. That is the experience. They may come in and do come in with bank notes for deposit, and they lay them down on the counter, and the only thing that bank can do is to send them off to the redemption agency, from whence they go to the bank of issue, and the fellow there has no money to spare from his legal-tender reserve, and can not redeem them. He seeks to retire them, and that is the situation. They will not stay in circulation beyond a certain limit.

Mr. HAYES. If the 15 per cent is not in it to provide for what will come in. Of course the reserve would have to be provided.

Mr. BERRY. Very well.

Mr. HAYES. I say, if it was 50 per cent that was provided, to the extent of 50 per cent there would be an expansion of the currency.

Mr. BERRY. Yes; to the extent that you can get that money out in the hands of the people you can issue it.

Mr. WALDO. The whole idea of this credit currency seems to be this: That every year when we move the crops about two hundred millions of credit has to be called in by country bankers from New York City and other great centers, and they having nothing that they can issue to represent those credits, so that they can carry the loans that they have made out of them in New York, they are obliged to call in their loans in New York and Chicago and Philadelphia and make them pay up, and then ship back to the country banks the credits that they need. Now, that makes every year a serious stringency in all the money centers. They say that if, instead of being obliged to do that, they can issue their own notes for this \$200,000,000 and ship those back to the country banks, within about three months that money will all be back again in the money centers and the loans will not have to be disturbed, and this serious disturbance will not be caused every year. What do you think of that?

Mr. BERRY. Your contention is that the money is wanted to go into the hands of the people for daily exchanges backward and forward. My contention is that that is not all that the money is wanted for.

Mr. WALDO. One other thing. Take the fact that this stringency occurs and that this transfer of credit takes place every year, and has for many years every year at the time of the movement of the crops, does not that show that the money is needed for the movement of the crops from the West and the country, and that it is not needed for the reason that you suggest?

Mr. BERRY. I am satisfied that there are periods, of course, of activity and of dullness in all agricultural districts.

Mr. WALDO. Do not those occur every year when the crops come in?

Mr. BERRY. They occur, yes, every year. There is no doubt about that.

Mr. McCREARY. You take, for instance, a concrete statement made by Mr. Wexler, of New Orleans. He says that at a certain period of the year \$750,000,000 are absolutely needed and required for the crop payments and the movement of the cotton crop. That is an emergency occasion. This money would come in for the purpose of meeting that emergency. If they can put out that money, \$750,000,000, that goes in and the cotton is shipped and sold abroad. That would come from abroad, and the balance of trade in our favor gives us the advantage of drawing on them for gold from the other side, and that is the occasion of bringing in the gold here and increasing the value per capita of gold to the inhabitants by the profit that comes from it.

Mr. BERRY. As I have already said, it is simply a question of judgment as to whether or not this demand for currency is a demand for hand-to-hand use or whether or not it is a demand of the banks for the basis of expanding credit. Now, my experience with the western towns with which I am acquainted is that the latter is the truth, and to-day the fact is that this has not been a spasmodic demand, a seesaw, but that this is a perpetual demand, a continually increasing proportion, and it is the developing of the industries and the floating of enterprises, the building of trolley lines, and God knows what, in all that country that is making a perpetual demand for credit, which credit can not be extended without legal-tender money in the banks. That is my contention—that is the point that I wanted to impress on your minds—that the facilities for expanding credit are not present; that is, perfectly legitimate and proper credit. If I have \$100,000 of Government bonds or a block of houses anywhere I should be able to go to a bank and convert it into money or into credit with which to carry on any enterprise that I choose, but I can not do that unless the bank has a sufficient amount of legal-tender money to represent a reserve against that credit.

Mr. McCREARY. But this is to remedy and meet certain conditions that exist at certain periods of the year. Now, Mr. Wexler, from New Orleans, says this amount of money is required to be paid out in what they call "long green"—paper.

Mr. BERRY. Yes.

Mr. McCREARY. And then, perhaps, after it has paid for the cotton the man who has it pays it to his storekeeper and he pays it to somebody else, and so it goes around and the stringency is relieved after the condition has been removed.

Mr. BERRY. I think that is true. That far it is true, but the storekeeper and others deposit it in bank, and then there is trouble. No reserve to hold against the deposit, and the notes are immediately sent in for redemption. If payments from man to man was the only problem you have to face it is probable that some legislation along this line would help to solve it.

Mr. McCREARY. That is the problem there. But you have the movement of grain and in certain sections the movement of ores. That is continuous, but the movement of the grain is not. No; the movement of ore is not continuous, because it stops in the winter time.

Mr. WALDO. Yes.

Mr. McCREARY. The basis of all value comes from the land. You can not make money by simply saying it is money, but the thing to

do is to get our money so as to move our crops and then get the crops over on the other side and sell them to the people, other than ourselves, so that the balance of trade is in our favor, and we draw on them for their wealth in exchange for that which we grow from the ground. That is the basis of wealth.

Mr. BERRY. That is all true except the statement as to money. You can and do make money by simply saying (in the law) that it is money.

Mr. McCREARY. Now, we may have our railroads congested, as they are, and unable to take and carry their freight; and yet that does not mean prosperity. It means, rather, a congested condition in which they have their moneys all locked up in the railroads and the cars and the things in the cars, and the idea is to take it and get it to the point of shipment and get it over on the other side so that we get the money as a return for the investment.

Mr. BERRY. So far as that particular demand for that spasmodic purpose is concerned—

Mr. McCREARY. That periodical demand.

Mr. BERRY. So far as that periodical demand is concerned, that is true. Some credit method like that might be remedial. But what I wanted to do, and my whole errand down here, was to impress on you that you have a problem larger and broader and deeper than that. You have the problem of a speed of production that has never been paralleled in the history of the world before. Here you are with your transportation facilities developed. You have double tracks and four tracks and more cars, and yet to-day you are unable to handle the situation. The railroads desire to increase their facilities. They have assets worth many millions, and yet you are unable to furnish them credit with which to improve their facilities, and the whole process will have to stop unless you do furnish them the means of expanding credit.

Mr. McCREARY. This emergency currency comes to carry the thing over.

Mr. BERRY. Let me ask you this question: Suppose that time comes when there is a demand for \$500,000,000 that has got to be shipped into the interior from New York. In New York they require 25 per cent. That would be a question of \$125,000,000 that would have to be found there to stand as a reserve against the note issue. Where is it going to come from? You are stalled right there. You can not issue it to save your life.

Mr. McCREARY. Your issue would be based on your assets as a temporary expediency.

Mr. BERRY. But you have to have your reserve in coin—in legal tender—and you can not get it without collecting loans.

Mr. CALDERHEAD. How would you increase the legal tender?

Mr. BERRY. I would do it by buying the Government bonds with greenbacks or other legal-tender money.

Mr. CALDERHEAD. Issue more of them?

Mr. BERRY. Issue more of them. Replace your present bonds with them as fast as the owner of the bonds is willing to let loose of them. When he wants money, let him sell his bonds to the Government and take money for them.

Mr. CALDERHEAD. The Government is now buying bonds for the

purpose of furnishing him money. Did I understand that you were to take greenbacks in place of the bonds?

Mr. BERRY. Yes.

Mr. CALDERHEAD. And make legal tender of it?

Mr. BERRY. Yes.

Mr. CALDERHEAD. I would like to know whether you can make money by law?

Mr. BERRY. You can not make it in any other way. That is the only way you ever made any, or anybody else. Nobody ever made a dollar out of anything, except by law. If he did, he is behind the bars, wearing a striped suit.

Mr. McCREARY. That is the right of a sovereign power, to make money?

Mr. BERRY. Certainly.

Mr. McCREARY. But you can not create value that way.

Mr. BERRY. You can give price to your money, but you can not give value. Nothing but the demand can give it value. That is all that gives the gold money value to-day—the demand for it. The law fixes the price of it, and that is all it does, and makes it legal tender for debts. The fact that it will pay debts makes a demand for it. People will give up as much for one kind of money as another. It makes no difference what kind of money you give me so long as it will answer my purposes.

Mr. McCREARY. That would be an argument in favor of credit currency. That is one kind of money, and it will answer this purpose. But this is to answer the purposes of a currency.

Mr. CALDERHEAD. If the Government can create money by an act of Congress and make it a legal tender, what is the use of all this planning for bank currency? Why not create the currency, all that is needed?

Mr. BERRY. The question is up to you. I think it should. I think it is the duty of the Government to furnish the people with all the money they need. There should be an automatic check on its issue. There should be restraints upon it, such as would be a guaranty against an overissue.

Mr. CALDERHEAD. What would the automatic check be?

Mr. BERRY. The automatic check upon its issue would be the fact that whoever received it from the Government must surrender an interest-paying bond in exchange. Now, it is no serious trouble for the Government to print the money directly, and this method will get it into circulation as rapidly as it is needed, and no faster. If I wanted it I should be compelled to surrender an equivalent to get it.

Mr. CALDERHEAD. To put your potatoes in the subtreasury?

Mr. BERRY. No; you need not go to potatoes for an equivalent. There are many other things more convenient than potatoes and less perishable. I would confine the exchange to bonds—national, State, county, and municipal—in the order named; thus putting the taxing power and the entire wealth of the country behind the currency.

Mr. WALDO. Could not the trouble that you find be reached by releasing the bank from the necessity of keeping any reserve?

Mr. BERRY. Yes; and then you would put us "on the hog" at once, everywhere.

Mr. WALDO. Then the real trouble, from your point of view, is not a lack of money, but a lack of the right in the banks to use their credit. Is not that true from your point of view?

Mr. BERRY. No, sir; there is no real restraint upon the use of bank credit. We have undertaken to put restrictions upon the banks, and, I think, wisely. The fact of the business is that if you were to remove the drastic regulations that the Government puts upon the banks in the use of credit, if you were to remove the requirement of these reserves under the supervision of a Federal officer, you would destroy the confidence of the people in the banks and make them unable to do anything with their credit. The chief reason that they are able to do so much with the credit to-day is that they are under this Government supervision and compelled to maintain reserves.

Mr. WALDO. I understand that. If the banks should, for instance, agree to issue, without any reserve or without such governmental security as we have now by bonds, a credit currency, for which the assets of all the banks in the country should be pledged, guaranteed by all the banks of the country, would not, then, this trouble that you see in their not being able to loan vanish altogether, so that the trouble now, the real trouble that you complain of, is not because we have not money enough to meet the growth of the country, but because we have not credits enough that can be used in that way? Is that the real trouble?

Mr. BERRY. Yes; the trouble is a lack of credit, but the cause of this is a lack of legal-tender money. A credit currency guaranteed by the banks and secured by all the assets of all the banks would not be as good as a national legal-tender currency guaranteed by the Government and secured by all the assets of all the people in the nation. The proposition to redeem one obligation by issuing another ad infinitum does not appeal to me.

Mr. WALDO. Then that question, which is the question that you have in your mind and which is the trouble and which we ought to meet in some way, and is a different trouble from the one we are trying to meet now, which is the failure to supply sufficient cash to pay for the crops in the fall without disturbing all the credits in the money centers, is a different thing from the one you are talking about.

Mr. BERRY. I think it is the same proposition exactly. It hinges back upon it. By the plan you have before you you propose that a reserve shall be held against the notes issued, and I am pointing out the fact that that reserve is not available; that it is not in sight at all.

Mr. WALDO. That only applies to the plan and not to the trouble. There are two troubles that you speak of here. One trouble is that the wealth and prosperity and growth of this country are exceeding the lending power of the banks, because they are obliged to create reserves. That is one trouble.

Mr. BERRY. Yes.

Mr. WALDO. Now, the other trouble, which is a temporary trouble, which occurs three or four months in the year only, is that there is not sufficient cash to put into the pockets of the western and southern farmers without disturbing the loans in the money centers, because those loans must have a reserve behind them under the present system.

Mr. BERRY. Yes.

Mr. WALDO. Now, the one thing has little to do with the other. The other is a mere temporary thing for a short period each year. The trouble that you complain of is the lack of money for permanent improvement.

Mr. BERRY. But do you not see that they are immediately tied together?

Mr. WALDO. They are tied together.

Mr. BERRY. By the fact that the reserve is required in either one? If you abandoned the reserve proposition, I think the ultimate outcome would be the wreckage of credits everywhere. I think the stability of your credits to-day results from the splendid supervision that the Government gives to these banks, forcing them to keep these reserves. That is the basis of your credit to-day, and that is the reason that the dollar in this nation is a centipede, and it will do ten times as much work as in any other country in the world.

Mr. WALDO. The only reason that the dollar will do ten times as much work as anywhere else is because you can get gold for it any time you want it; is not that it?

Mr. BERRY. No, sir.

Mr. WALDO. I think it is.

Mr. GILLESPIE. They could not all get it if they wanted it.

Mr. BERRY. No; they could not all get it. Your credits constitute nine-tenths of your currency, and your credits are expanded to the absolute limit. They will expand just as rapidly as you put new legal-tender currency in circulation. They will go no further, because you have fixed, and not only you but the usages and experiences of the ages have fixed, the fact that about 15 per cent on the average is an absolute necessity of reserve, because about one man out of six is coming after his money, and you have got to have it there for him. That is the experience, just like insurance averages or anything else. You have found out that the average experience is that about one man in six will come for his money, and you have got to have it there for him. There is no question in my mind that bank notes under any possible system of issue are certificates of deposit, and a proposition to count them in the bank reserves can not be entertained. This is the essential weakness in any bank-note currency.

A careful study of the last report of the Comptroller will be profitable. It appears from the table on page 50 that from 54 to 60 per cent of the total money in circulation stays in the hands of the people and will not go to the banks. The total in the banks in 1906 was \$1,016,400,000, held against \$12,350,000,000 of deposits, an average of about 8 per cent of reserves.

Of the \$1,733,800,000 said to be in the hands of the people \$580,000,000 are in bank notes, or 33 per cent. Since these notes are in large denominations they come into the banks as daily deposits to a larger percentage than this and decrease the loaning power of the banks. If they are increased in quantity, this trouble will be increased.

All the money in circulation should be legal tender, then all the money in the banks could be used in reserve and extend the power of the banks to issue credit, and thus increase their profits as well as their usefulness to the country.

STATEMENT OF MR. HENRY W. PEABODY, OF BOSTON, MASS.

Mr. PEABODY. I appreciate the privilege as a business man of coming before your committee, Mr. Chairman, to express some views upon the perplexing problem of currency reform. I would not presume to undertake this, but that in the past fourteen years I have continually noted and studied the phases of our coinage and currency, and have recently expressed my convictions in the New York Chamber of Commerce and in the daily press.

I am also delegated by the Boston Merchants' Association to represent it in support of these views before your committee. I have here a credential from them addressed to the chairman of this committee, which is as follows:

BOSTON MERCHANTS' ASSOCIATION.
Boston, December 14, 1906.

The COMMITTEE OF THE NATIONAL CONGRESS ON
BANKING AND CURRENCY.
Washington, D. C.

GENTLEMEN: This may certify that Henry W. Peabody, esq., of Boston, appears before your committee as the duly accredited delegate of the Boston Merchants' Association in advocacy of what has come to be known as the "Boston plan" of currency reform.

At the regular meeting of the board of directors of the Boston Merchants' Association, held on Wednesday, December 12, 1906, Mr. Peabody's position was given the unqualified indorsement of the board.

Respectfully, yours,

AMORY A. LAWRENCE, *President.*
ERWIN H. WALCOTT, *Secretary.*

The Boston Daily Advertiser has in its editorials strongly urged the same views and termed them the "Boston plan." I am really bringing nothing new in my advocacy of a simple remedy for the troublesome nonelasticity of the national-bank currency. It is the only form that might possess elasticity, and your own committee in former sessions has recommended this same measure with other reforms which the House has acted favorably upon.

The New York Chamber of Commerce also in its recent complex recommendations included the repeal of the restrictions limiting the aggregate retirement of notes to \$3,000,000 per month. The joint committee of the New York Chamber of Commerce and of the Bankers' Association in its broad report likewise recommends the removal of these restrictions as essential to elasticity.

Mr. Chairman, I submit that it will be a sufficient remedy to remove this hindrance and to restore to the banks the freedom of issue and of retirement of notes that they enjoyed from 1864 to 1882. This all acknowledge must be done in any case. Can we not agree in urging Congress to proceed at once to this simple and safe legislation. This done, it will soon appear what special constructive legislation, if any, is required.

The banks, in anticipation of stringency, will doubtless purchase or borrow United States bonds to be used for increased circulation, and will retire the notes when the demand slackens. Why should it be supposed that banks would abuse such freedom? They are not likely to retire circulation and sell their bonds in the autumn, even if the market value should be enhanced a bit over cost, as they will need to maintain their circulation; and if some banks should offer

bonds for sale in the spring, when money is plentiful, investors, as well as national banks, will be ready to buy them, and the market will not be slaughtered. Should we not consider a supply of currency, adjusted to the needs of business, of greater importance than even a uniform market value for Government bonds?

National banks have served us well for forty-two years. No one doubts the soundness of bond-secured notes; they are as good as gold. We should give the banks freedom and trust them, at least until they prove themselves untrustworthy. If all the banks do not increase their circulation, many banks will, and probably banks in large cities will issue all the requisite volume of emergency notes when and where they are most needed. This is not mere supposition on my part. I have been assured by several bank presidents of high standing that this would be the outcome, and they would issue at least \$500,000 emergency notes each, if they could procure the bonds, as they believe they could.

It is pretty certain that emergency notes based upon borrowed bonds will be retired when they are not needed, because the bonds must be released for return.

The President recommends that larger privileges of retirement of notes than \$3,000,000 per month be given to the banks, and that funds derived from customs duties may be treated by the Treasurer as he treats funds obtained by the internal-revenue laws, and that bills of small denominations should be increased. All of these simple measures are comprised in the Boston plan and are urged by the Boston Merchants' Association as practicable legislation in the present session if favored by your committee.

Up to July 1, 1882, the banks could issue or retire notes without restrictions, but the law of July 12, 1882, purporting "to enable national-banking associations to extend their corporate existence, and for other purposes," restricted the issue, as well as the retirement, of notes. It prohibits any bank that retires any of its notes from increasing its circulation for the period of six months from the time of deposit of lawful money for such retirement and further provides "that not more than \$3,000,000 of lawful money shall be deposited during any calendar month for this purpose."

Is it not a fair assumption that the real object of these restrictions was to prevent the growth and elasticity of the bank circulation to the advantage of silver certificates, which, by the same act, were qualified to be held in the banks as reserves? This law debarred from membership of any clearing houses any bank in which such certificates should not be receivable in settlement of balances. It appears that the limitations upon issue, as well as the restrictions upon retirement of notes, ought to be repealed.

One of the bankers at your hearing on Wednesday, supporting the Washington plan, said that our heterogeneous currency is a patch-work, and the proposed measure would put on another patch. The Boston plan would remove a patch that was put on in 1882 and uncover the original cloth.

I have stated the foundation of the views which I desire to express. I have had the privilege of listening at two of your sessions—the one on Wednesday and that of to-day—to the gentlemen in favor of the Washington plan, and it seems to me more than ever that it would be impossible to formulate and to enact a bill of such revolu-

tionary character, involving, as it does, great changes in the character of our national-bank notes and introducing principles which have never been demonstrated. My recommendations are so simple that no one could object to them, and the only question would be whether they would furnish an adequate remedy. Several of the gentlemen who have expressed their views are afraid that the banks would reduce their circulation and would sell their bonds and break the market.

I do not believe that the banks would wish to reduce the circulation when there is so evident a need of increase, and they never have in the past, as I understand, retired notes in any year to the amount of \$3,000,000 per month. Practically all the notes that are in circulation to-day are there for keeps, because if they wished to retire them, the privilege is so small that the banks would have to knock at the door of the Treasury a good many times before they would be able to lodge their money there. One of the misfortunes of our currency is that the only elastic money we have is relatively so small in volume. Silver certificates, starting from nothing in 1878, amounting to some \$50,000,000 in 1882, had grown, before the coinage of silver dollars ceased, to just about the amount of the national-bank notes, \$500,000,000, and they are there rigid in the circulation. National-bank notes have increased in the last twenty-four years in just the same ratio as our per capita circulation, and I have never known of their proving anything but safe and good working money.

I think we shall be vastly better off if we could transform some of our other paper money into national-bank notes. Our gold is increasing constantly, there is an invisible expansion going on all the time, probably sufficient to keep pace with our population; and while we do not see it, do not realize it, it is there. If we should empower our banks to increase circulation when it was needed, a bond-secured circulation would probably obtain, in an emergency period, through bonds which could be temporarily or permanently procured, to the amount of \$100,000,000 or \$200,000,000. This would have sufficed, according to the estimates given, for this present fall.

But under the system of limitations that the national banks are under it is impossible to retire notes if they issue them; consequently they refrain from issuing the notes because it would be a permanent investment, and that would be inflation without corresponding contraction when contraction ought to ensue. And so I have regarded and do regard the national-bank system as worthy of a much larger place in our currency. The bank-note circulation is too small now to do all the stretching, being a little more than one-sixth of the money in circulation. Elasticity is demanded, but the law renders it impossible. I submit the proposed plan, the following items: Repeal of the restriction of the issue and retirement of notes in the law of 1882; authority to be given to the Treasurer to deposit in national banks the money that he has from customs, and the increase of small bills, so far as possible, would be a very great relief. If there should be anything lacking after that, you would have a better foundation to work upon the original system, and it would be very easy when you saw defects to formulate another bill to correct them.

I strongly recommend for myself, and in behalf of the organization for which I am a delegate, that you consider these simple propositions as being practical for legislation. They are the same

that you have recommended before and that the President urgently desires to have considered.

Mr. McCREARY. You spoke of going back to the system that obtained or was in vogue between 1862 and 1883. What did you mean by that?

Mr. PEABODY. I mean that under the original laws of the national banks—of 1864 and the revised law of 1874—they had the privilege of issuing notes whenever they presented bonds to procure them with, and they were at liberty to retire all or any part of their notes by deposits of legal tender money; and that privilege was destroyed by the law of 1882.

Mr. McCREARY. That was the resumption of specie payment?

Mr. PEABODY. No, sir. Specie payment was resumed in 1879. The silver certificates were coming into vogue in 1882, and there were some \$50,000,000 or \$60,000,000 in existence at the time of the passage of that law.

Mr. McCREARY. But the most of the time that this was in operation was before the time of specie payment.

Mr. PEABODY. Yes, sir.

Mr. McCREARY. And when notes were put out simply based on bonds, and the bonds were based on the ability of the party buying them to put up the gold for them?

Mr. PEABODY. Yes; or legal tender notes.

Mr. CALDERHEAD. What was the immediate occasion of that statute?

Mr. PEABODY. I presume it was to give the right of way to the silver certificates.

Mr. CALDERHEAD. That is limiting the redemption to \$3,000,000 a month. What was the immediate occasion for that?

Mr. PEABODY. I do not know, sir. I had thought of looking up the Congressional Record and following the views expressed, and I started to do it one day, but did not have the time to go into it deeply enough.

Mr. HILL. I know it was discussed about two years ago in the House, but I do not recollect the reason for it. I think Mr. Fowler or somebody else brought a statement from the Treasury Department as to the reasons why it was done. I think it will be found in the Record. I was just trying to think of that.

Mr. GILLESPIE. Were not the banks retiring their circulation then to prevent the contraction that this limitation put upon them?

Mr. PEABODY. No, sir. If you would like to hear it, I have a copy of the two sections here.

Mr. HILL. If you want to know what I think was the real reason, I think it was the tendency of the country at that time toward cheaper money, and on the ground that the Government note was more sacred than a soldier's grave. [Laughter.]

Mr. PEABODY. It is contained in section 9 of the law of 1882.

Mr. WALDO. I want to see if I get Mr. Peabody's idea correctly. Your propositions for relief from our inelastic currency, if I get you correctly, are, first, repeal of the limitation on the amount of issue?

Mr. PEABODY. Yes, sir.

Mr. WALDO. Second, repeal of the limitation on the amount of retirement?

Mr. PEABODY. Yes.

Mr. WALDO. Third, that all United States surplus funds should be deposited in the national banks?

Mr. PEABODY. Yes.

Mr. WALDO. And, fourth, a largely increased issue of one and two dollar bills?

Mr. PEABODY. Yes. I think if you wanted notes issued you would have to remove the prohibition in the law of 1882, because if any bank had happened to retire any notes within the previous six months, it could not issue any more.

Mr. WALDO. Do you think that this would give the required elasticity in the currency which the bankers' association say is so badly needed?

Mr. PEABODY. I do think so.

Mr. WALDO. So that there would be the needed increase during the movement of the crops of \$200,000,000, and then a decrease of about the same amount between the time of the movement of the crops and the time that the next crop came in?

Mr. PEABODY. Certainly the notes would not be continued if they were not needed. If we have too small a circulation in the country at the present time, as the gentleman from Pennsylvania has stated, and I think it is very possibly true, as business has increased tremendously fast, it might be that if it was needed we would want it to remain. If it was not needed and the rate of interest should become so low that currency was a drug, it certainly would be retired.

Mr. WALDO. Would there not be this trouble, that the banks, in order to get this \$200,000,000, would have to invest \$200,000,000 in United States Government bonds, while by the plan recommended by the bankers' association they would not have to part with any of their assets in order to get the currency?

Mr. PEABODY. If you passed the bill and tried it for one year without trammel, I presume the bankers would be able to procure bonds with collateral from the trust companies and savings banks who hold them, and there being a little more than \$300,000,000 current outside of the banks, we may assume that half of them could be secured.

Mr. WALDO. Do you not think that this method of expanding the circulation by taking \$200,000,000 of assets of the banks would increase the stringency by requiring the calling in of loans to that amount whenever this circulation was required?

Mr. PEABODY. It would not be money that they would part with, but investments. Many of the banks have investments as part of their reserve security, not deposit reserve.

Mr. WALDO. Could this form of investment, for instance, call and short time loans, be used with a savings bank to borrow United States Government bonds from the savings bank?

Mr. PEABODY. I could not say just what class of security they would put up, but the idea is to borrow from institutions that they know, and the only reservation that these bank presidents made was, "If we could get the bonds." They can put up the stuff and they can issue the money, and the expansion that comes in that way is by converting temporarily the material investment of securities into actual money, and when the issue is retired the money goes back again into the same securities and is withdrawn from circulation.

Mr. WALDO. Would it not be so much more expensive to get this additional circulation from the national banking system, as you sug-

gest, than the system proposed by the bankers' association, that practically none of the money would be issued under your plan, or at least only a small proportion of what would be issued under the other system?

Mr. PEABODY. That system recommends credit emergency currency. What is contemplated by the proposition of borrowing bonds and depositing them with the Treasury only concerns the bank or the trust company that loans them; it is a private arrangement. The procurement of notes is by precisely the same method by which they have procured them, against bonds which have been deposited in the banks in years gone by. It will procure the money by converting temporarily the securities into money by means of the bank act.

Mr. WALDO. The question with me is whether the plan suggested by you will not be very much more expensive than the plan of the American Bankers' Association?

Mr. PEABODY. It would involve no expense, as I understand.

Mr. WALDO. They would have to pay interest, would they not?

Mr. PEABODY. Oh, yes.

Mr. WALDO. That would be the practical result?

Mr. PEABODY. No, I do not see that there need be any interest involved, because the bonds will be paying their interest just the same to the owners of the bonds, and the owner of the collateral will receive his interest on the collateral. It is not destroying anything, but it is putting up 110 per cent savings bank securities, if you please, against 100 per cent of Government bonds, and the tendency so far would be to enhance the value of the Government bonds, if that is desirable.

Mr. WALDO. Then, your idea is that the savings banks and trust companies and State banks would loan to the national banks their bonds and require no interest except the interest that would be drawn by the bonds loaned?

Mr. PEABODY. That is my idea.

Mr. WALDO. In other words, that the surplus interest that came in on the securities placed by the national banks would be returned to the national banks?

Mr. PEABODY. Yes.

Mr. WALDO. So that they would be in exactly the same position as though they had not pledged their securities, so far as interest is concerned?

Mr. PEABODY. Yes.

Mr. MCCREARY. On that line, to show how it works, certain of the banks being named as Government depositories, they are required to comply with certain conditions. First, a bank must have \$50,000 worth of bonds to get a basic deposit of \$50,000. Then after that they got a temporary deposit based on municipals, or bonds that are valuable and have a fixed value. Now, the result of that has been that a great many people have gone to savings banks, such as you suggest, but are required, and very properly required, to pay interest or something for the loan of those bonds. That is the way it works.

Mr. PEABODY. I do not know whether there would be any charge made between one friend and another friend—but there would be no hazard.

Mr. MCCREARY. There is no friendship between banks.

Mr. PEABODY. But I think that the trust companies would be glad to be a means to its creation.

Mr. MCCREARY. The only time there is any friendship between banks will be when human nature is perfect, and that will not be in this world. But what I was going to say was this, that they will loan on a basis of charging them for the loan and getting as a collateral for the loan of those bonds absolute security from the bank, so that it is not done as matter of courtesy; it is done as a matter of profit.

Mr. PEABODY. Doubtless they may make a charge, but it would be at a specific rate of percentage per annum.

Mr. GILLESPIE. Might not this condition prevail: A savings bank owning United States bonds might go to the national banker and say, "You take these bonds"—and of course this is all presumed to be in the period when the interest rates are high. He would say, "You get this currency and take out the notes, and we will divide up the profit." Might not that happen?

Mr. MCCREARY. I do not think they could do that under the law.

Mr. GILLESPIE. What is the use of keeping the bonds if they could make this arrangement with the national banks and get more interest?

Mr. HILL. Mr. Chairman, I would like to say a few words if I can say what I have to say before you as my colleagues and not be reported.

Mr. GILLESPIE. The parties that you represent, do they oppose the American Bankers' plan?

Mr. PEABODY. Yes, sir; except in one section, in regard to the retirement. In that we stand together. Both recommend the repeal of the retirement clause.

Mr. GILLESPIE. That is the only point of coincidence?

Mr. PEABODY. That is the only point of absolute coincidence. The distinction is made, Mr. Chairman, between an enlargement and progress of the bond-secured circulation established in 1864, and the creation of a new form of note, whether asset note or credit note, which would change the national-bank system and would be a rash experiment for which we have no precedent. But to enlarge the circulation of the national-bank notes could do us no harm if the money were needed, and we should not have changed anything; excepting that if in these last twenty-four years that law of 1882 has been an injury we should find it out, and if the independence should prove to be hazardous you would find it out, and you would be prepared next winter to consider the situation from that standpoint and to make the bills to suit the case.

Mr. WALDO. Is it not a fact that the United States bonds upon which the national-bank issue is based are now becoming scarce and the total amount being continually contracted?

Mr. PEABODY. It is true.

Mr. WALDO. Would not the natural result of that be that in a little while there would be nothing to base your bond-security system upon?

Mr. PEABODY. No, I do not think so. There ought not to have been such a scarcity of bonds. In my view we never should have paid out of revenue funds the enormous amounts for the Philippines, and certainly we are not likely to do it on the Panama Canal, and there will be a prolific source of a new series of bonds. [Laughter.]

Let the future generations pay those bonds, and do not make the

customs dues pay them. Now, we have got enough bonds to take care of us next fall if you will allow the banks to get them and use them. After next fall there will be the Panama bonds, which, if the banks will take them, would be continually plentiful, and perhaps we would find that the national-bank system would be so good that you would consider the removal out of our circulation of some of the paper money which we have, which would be a great deal better represented in the elastic bank notes, coming nearer to an actual gold standard, and in making use of gold, which we rarely see now and which we use largely by substitution. I consider that gold and gold certificates and bank notes, if we were making the system over again to-day, would probably form our currency. I know there would be obstacles to arriving at that point, but it would be a more ideal currency.

Mr. WALDO. If we should put into circulation all our gold instead of the gold certificates which we use now, would not the result of the constant use of that gold occasion a serious loss every year from wear and tear that would be greater than the expense of the issuance of the certificates?

Mr. PEABODY. Not when you consider that the certificate is just as good as gold if you prefer it.

Mr. WALDO. You do not mean, then, that the certificate would be retired, but that the legal-tender greenbacks and the legal-tender notes would be?

Mr. PEABODY. Yes; the legal-tender greenback. I have advocated in the past that so much of the silver certificates as did not represent money value in the silver should be retired. I think that there should not be any more greenbacks, as suggested by the gentleman from Pennsylvania; but I think we should get rid of the greenbacks we have and have nothing but gold, gold certificates, and silver certificates connected with the Government, and then they would be out of the banking business.

Mr. BERRY. Mr. Chairman, may I ask the gentleman a question?

Mr. PRINCE (acting chairman). Yes. I think in view of the fact that the gentleman has mentioned your name you particularly should be allowed the privilege.

Mr. BERRY. May I ask you, Mr. Peabody, whether you would suggest that this currency with which you propose to substitute the Treasury notes and the silver certificates should be made competent to stand as bank reserves?

Mr. PEABODY. It was rather a startling suggestion that we had not money enough for reserves. The 15 and 25 per cent requirement is based on the deposits in the banks, I believe. I do not know what those are, and I could not figure it out.

Mr. BERRY. Those deposits are now about \$12,000,000,000 a day, which it requires almost every day in the United States to represent them.

Mr. PEABODY. That is a matter of law. How far that could be modified with safety I do not know. But the fact is that we base everything finally on gold. We profess to do so, and we have a large amount of gold in the country, and I do not believe that we need the greenbacks to represent gold.

Mr. BERRY. The point in my mind is that you can not get along without the credit we are now using.

Mr. PEABODY. Yes.

Mr. BERRY. And unless you reduce the percentage of reserves you can not do without a dollar of legal-tender money that we now have.

Mr. PEABODY. Yes.

Mr. BERRY. And unless you make your bank note competent to stand in its place you would simply paralyze the industries of the country by such a move as that.

Mr. PEABODY. It certainly is a strange thing that we should have a per capita much greater than any other country in the world and yet not have enough for bank reserves. But we certainly have gold enough, and that is increasing all the time and expanding our currency and expanding the gold basis of it.

Mr. BERRY. But our gold money will not furnish 5 per cent of our deposits, to say nothing of 15 per cent.

Mr. PEABODY. That is a new phase of the matter to me, and it requires thought, Mr. Chairman. Reference has been made by the Secretary and by those who have been before you regarding the hazard of changing the market value of bonds should they be retired and sold.

I am not favoring at present any constructive legislation, but I venture to express thoughts that I have had in anticipation of some future time when the introduction of other than bond-secured bank notes may be considered, that perhaps the bonds might be modified rather than to change the character of the notes. Might not future issues of United States bonds be offered first to the banks at par to be used as a basis of circulation, issued to them distinguishable from bonds that are sold in the market to the highest bidder? The banks might be required to surrender first at par the bonds they had so received, and we might reasonably expect that other banks would apply for them at par for purposes of circulation, or if not the bonds could be canceled and in their stead bonds issued to be sold to the public. In this way the banks would not suffer loss in holding bonds, and could not make profit on the sale of them.

That is all I have to say, Mr. Chairman.

Mr. PRINCE (acting chairman). We are very much obliged to you for being so patient and waiting so long for your turn, Mr. Peabody.

Mr. PEABODY. I appreciate very much having had the opportunity to address you, Mr. Chairman.

STATEMENT OF HON. EBENEZER J. HILL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT.

Mr. HILL. In the first place, I am opposed to debts either individually or publicly, and I believe in getting them out of the way as quickly as possible. For that reason I am forced to the opinion that we have some time or other to come to a condition of asset currency, and that I favor. I do not believe we can ultimately reach any other solution of our currency problems. That is my judgment.

Mr. WALDO. I am in hopes you will not make that too strong.

Mr. HILL. I did not want this put in the notes. What I am saying to you gentlemen I want to say as to my colleagues sitting around this table.

Mr. PRINCE (acting chairman). Upon what is your belief based?

Mr. HILL. I do not think the country is ready for the asset currency system yet. However, I do think it is possible that you can get as far as a change in the retirement clause now. Those of you who were here two years ago will remember that a bill was then brought before the House covering six or seven provisions of currency adjustment. We reached then an agreement between the two sides of the House on the question of the retirement clause, our Democratic friends consenting to a maximum retirement of 3 per cent a month instead of 3,000,000 as now. Mr. Gillespie will remember that. That was accepted by the Member in charge of the bill. Three per cent a month would be, to-day, about fifteen or sixteen million dollars. In my judgment, that would be a repeal of the retirement clause to all intents and purposes, so far as the actual, legitimate call for retirements was concerned; but not for speculative, and speculative we do not any of us want.

Now, in regard to the question of changes in the disposition of customs and internal-revenue funds, and the putting of them both on the same footing, that was the rock on which the bill split two years ago. Nobody questioned the propriety of treating both classes of funds in the same way, at the discretion of the Secretary of the Treasury, letting him deposit them, and not requiring him to segregate them and put the internal-revenue funds in a bank, and to hold the customs funds locked up in the vaults of the Treasury. That is an absurdity. But the question was as to how it should be done. The difference of opinion was on this point. Some said, "Deposit in the banks, without security, and with 2 per cent interest." Others said, "Deposit all alike, as we are now doing."

Now, since that time I have very diligently inquired of people whom I have met in different parts of the country and put to them this question: "Would you prefer that the funds of the United States should be deposited in the banks of the country without security and with 2 per cent interest or that they should be deposited in the banks with security and without interest?" I have yet, Mr. Chairman, to meet the first man who did not take the latter side of the proposition. Every one, without exception, has said: "We prefer the security without the interest rather than the interest without the security."

Mr. PRINCE (acting chairman). In connection with that let me suggest this, that we had before us to-day the State treasurer of the great State of Pennsylvania, and he informed us that about \$13,000,000 of their State money has been deposited in banks in that State.

Mr. HILL. Yes.

Mr. PRINCE (acting chairman). They take security and they take 2 per cent interest.

Mr. HILL. Yes.

Mr. PRINCE (acting chairman). Now, if the State can do that, can get interest and get security, if the security is good and they do not lose the interest, why could not the National Government do it?

Mr. HILL. There is no question about the physical possibility of doing it. The only question is as to how it would strike the common sense of the country. It is not a question of thirteen millions in this case. It is a question of one to two hundred millions, and it is a question of discretion on the part of the Secretary of the Treasury as to where he will deposit it. With bond security the exercise of that

discretion is burdensome enough; without security the responsibility would be intolerable.

The State of Connecticut does the same thing. The local banks receive deposits from the State of Connecticut to small amounts without security, and transmit to the State treasurer every six months sworn statements of their condition, and pay $2\frac{1}{2}$ per cent interest, if I am not mistaken, on those deposits, but that amount is trivial compared to the great amount that would be involved here; and political considerations do not enter into it at all in a State.

Mr. BERRY. They have entered, in the State of Pennsylvania, with a tremendous amount of effect.

Mr. HILL. I think I have heard, within the last two or three years, that political influences controlled the financial deposits in the State of Pennsylvania.

Mr. McCREARY. The city of Philadelphia in 1892 changed its system of depositing with the banks. It has deposited with the banks up to 25 per cent of their surplus and capital without security.

Mr. HILL. Yes.

Mr. McCREARY. The finance committee of the councils passing on the responsibility of the banks. There has been no loss, and there has been an accumulation of earnings of from \$100,000 to \$150,000 a year on balances running something like \$20,000,000.

Mr. HILL. I do not think it is a function of government to take the money of the taxpayers, accumulate a surplus, and loan it out for profit.

Mr. GILLESPIE. That is it exactly; at a profit. I do not believe that it is a function of the Government.

Mr. HILL. I think it is a vital mistake, and if such a condition of affairs exists, where that can be done, the sooner the taxes are reduced and things brought nearer to an equal balance the better. But I think, gentlemen, you will have trouble in the settlement of the deposit question on the basis of no security and interest. I think you will. I do not think you will have the slightest trouble in the amendment of the retirement provision, for practically the only opponent two years ago was Mr. Bartlett, and he agreed to this, as you will remember, Mr. Glass.

Mr. GLASS. Yes.

Mr. HILL. In regard to the asset currency, I am an advocate of it, and I believe in it; but I say to you frankly that I believe your proposition is going to fall down, on your redemption system. Of course I can not say definitely and critically in regard to a bill which is not as yet drawn, but the propositions as advanced in the rough, look to me as though the redemption system was going to fall down, and it looks to me as though you are making provision for a pure inflation of the currency to the extent of every dollar of your $2\frac{1}{2}$ per cent taxed circulation that you issue. Now, take a pencil, and I will show you. Take a bank to-day with \$100,000, with full circulation as issued by most of them—I mean country banks; I am not speaking of city banks now; I do not refer to large speculative city banks, many of which carry little or no circulation, but our country banks, which generally take out the full amount allowed by law. Assume that your bill has passed, and the bank wants to get all the benefit it can from its provisions. The first thing they have

to do, if they comply strictly with the bill, is to withdraw \$37,500 of their circulation, to get down to a circulation of 62½ per cent. That is correct, is it not?

Mr. HAYES. I do not understand so.

Mr. HILL. I do. They have to retire 37½ per cent of their circulation to get down to 62½ per cent to get the maximum benefit of the intent and provisions of the new bill.

Mr. HAYES. Yes; you are right.

Mr. HILL. They would lose on that proposition to-day \$375, or 1 per cent profit on that circulation which they must retire. Now, being down to 62½ per cent, they are entitled to take out 40 per cent of that of asset notes, which is \$25,000, and the tax on that is 2½ per cent, which makes \$625. Now, those two items added together make \$1,000. They are now in a position where they have taken out \$25,000 of asset circulation, 20 per cent only of which they can loan, because they have to keep 15 per cent reserve and 5 per cent redemption fund.

Mr. BERRY. They can not keep that bank-note circulation in their reserves.

Mr. HILL. No; the reserve must be lawful money, but that does not make any difference as to the profit on the transaction, for they can not loan but 20 per cent of \$25,000, and that will have cost them at this point \$1,000, or 5 per cent a year, instead of 2½ per cent. There is no getting away from that proposition, and this does not include redemption charges. It will cost them absolutely 5 per cent to get back where they were before they took out these notes. To a New England bank there is no profit in that. The discount rates on our loans will range anywhere from 4½ to 5½ per cent.

Now, that is not all the cost. There is 12½ per cent of the 5 per cent circulation which would never be taken out by any bank, except in articulo mortis—when suffering the pangs of death—because that circulation would cost about 6½ per cent in its actual ultimate analysis. You have, therefore, to go back exactly where your \$100,000 bank stands to-day, your bank and mine. To get back to that same point you have got to loan that money at from 5½ to 6 per cent.

Now, you have another proposition. As it stands there, that money is out and stays out. You say you are going to have it returned and the issue adjusted to the requirements of trade by a system of redemption in some way. Now, the first thing I ever had to do with a bank was when I was a boy. I began as a redemption clerk under the old Suffolk bank system. We had to carry a balance in Boston all the time to meet our note issues when they were presented for redemption. We had to pay the transportation on the bills from Boston and on the transmission of our own funds back to make our balance good. That is all right; if you do it at only one point, the bank can stand it. We do it now in Washington, and you say it is utterly ineffective; but as I listened to the discussion when Secretary Shaw was here I gathered that you propose, in order to make it effective, to have a large number of redemption points scattered throughout the United States, so that the bills of a New England bank turning up in San Francisco, or any of the numerous places designated by the Comptroller, would be redeemed there and returned to the bank of issue. The San Francisco bank is not going

to do that for love. Banks are not actuated by any such motive. The moment you multiply your redemption points you make your currency impossible because of the expense.

I believe that the fatal obstacle in the way of a sound, safe, and effective method of redemption under an asset-currency system in this country is the fact that we have 6,000 independent national banks, each one looking out for its own welfare, and with no community of interest whatever. Is there any way to meet this difficulty? I do not believe that you are going to accept my view at all. I do not expect that; but I think that the thing can be done. I am a believer in a central reserve bank. I would organize it on the following plan. I suppose Brother Gillespie and a good many of our friends, both Republicans and Democrats, with the same views of States rights that I have got (and I am somewhat of a States-rights man), would say this is contrary to the policy of this Government. I would make a central reserve bank, based on the plan of the organization of the United States Senate, and I would do it in this way:

The national banks of the country to-day have got a 5 per cent redemption fund in Washington, and they are doing this redemption business half-heartedly and ineffectively, as you know, because it is voluntary redemption, and it will be just as ineffective so long as it is not compulsory, no matter how many redemption points you have. That is a matter of detail, but it will be demonstrated in time. This 5 per cent redemption fund draws no interest and is a dead loss of capital while it remains unused.

Let me suggest to you, gentlemen, something to think about, because I do not believe one of you will agree to this, but you can think of it at night when you are lying on your beds. Might it not be a wise thing, a profitable thing, a sensible thing to require every national bank in the United States, instead of maintaining a 5 per cent redemption fund in the Treasury, to invest 5 per cent of its capital in the stock of a central reserve bank or bank of banks; such bank not to be managed by directors chosen in a single section of the country or controlled by the Government, but on the principle on which the United States Senate is now constituted, with one director from each State, chosen by the national banks in the respective State?

With such a governing power chosen by commercial institutions, and the directors naming their own officers, there would be absolutely no way in which political influences could be effective. These directors should be well paid and their continuous service given to the management of the bank. You would have 45 directors, which I think is a not much greater number than is found in the board of directors of the Bank of France. Such a central reserve bank, starting with a capital of \$40,000,000 to-day, should take over all of the outstanding bond-secured circulation and with it all of the bonds pledged for the existing notes. It should also be the reserve agent of all banks and a general depository for United States Treasury funds.

It should only be permitted to make loans to duly chartered banking institutions, on approved security of commercial paper, indorsed by the borrowing bank, or other collateral, in precisely the same way in which a clearing house issues certificates to its constituent banks.

It should transact no commercial business of any kind or char-

acter, either with individuals or commercial corporations. Such an institution, so organized, would be a complete concentration of the banking power, but with the control of that power diffused among the States, and could be safely intrusted with the privilege of loaning its credit in the form of asset currency issues, limited solely by the gold reserve and the legitimate commercial necessities of the country; for, being the sole note-issuing power, it could withdraw circulation at will as well or transfer loans from one part of the country to another, as the needs of the different sections should require, precisely as the great reserve and note issuing banks of Europe do, through the instrumentality of their complete systems of branch banks.

The president of the Bank of France to-day, with branches in each precinct of the Republic, can send a telegram to all his branches, "Retire such a percentage of your circulation. There is an excess in use." You can not do it with 6,000 independent note-issuing national banks. You can not frame any machinery that will, so long as the profit to each bank is the supreme consideration of each and not the good of the whole country.

On the other hand, if I believed the country was not ready for such a system as this, I would let down the bars a little and have a clearing-house district currency. A year or two ago I talked with the manager of the New York Clearing House about their system of issuing certificates. To-day all the banks of the country are practically issuing asset currency through the clearing house or through their reserve bank, which is the same thing, because they are the members of the clearing house.

If a bank is short to-day, instead of issuing asset currency, what does it do? It takes its collaterals or bonds, or whatever it may have in its vaults, and goes to the reserve agency and says, "Give me a credit," and they put up that security—commercial paper, bonds, or whatever it may have. The reserve agent scrutinizes that paper or those bonds and says, "All right; we will deposit to your credit within a safe margin and hold this security until you get ready to make it good." The other bank just issues its drafts and sends them out, and it is nothing more than an asset currency in large form.

Now, why could not that system be utilized by having a clearing-house currency and those assets—the bonds or whatever they are—supervised and scrutinized by half a dozen or more clearing houses throughout the United States. If the bugbear of centralization in one reserve bank frightens anybody, diffuse it and make it that way. That is all the suggestion I have to make. I believe that with your central reserve bank, with the control diffused instead of localized, as the old United States Bank was in Philadelphia, there would not be half as much criticism about it as you would think. In other words, I think it would present itself very favorably to the people of the United States to think that each State stood on an even footing in regard to the financial condition of the country, and they could choose their director with a power equal to that which any other director had.

I believe there is food for thought in that proposition, and in my honest judgment, gentlemen, it is the only way, through such plan as that, that you can make a satisfactory redemption system in the United States. I am utterly and absolutely opposed to the proposi-

tions of Secretary Shaw, of the aggrandizement of the power of the United States Treasury, and making that a great central national bank, for that is what we are drifting to gradually. I am utterly opposed to it. I believe in transmitting the power to the several States and letting them exercise that power jointly. If the people of the United States can trust their liberty and all of the other powers of the General Government to a Senate consisting of an equal representation of States, they certainly need not fear a concentration of the banking power of the country under a like control.

Mr. PRINCE (acting chairman). The question I was going to ask you is this—

Mr. HILL. Certainly.

Mr. PRINCE (acting chairman). I am connected with a bank that has a right under this proposed plan to issue uncovered notes.

Mr. HILL. Yes.

Mr. PRINCE (acting chairman). Suppose I have placed for my bank \$5,000 in a bank of New York to redeem my notes when they get there.

Mr. HILL. Yes.

Mr. PRINCE (acting chairman). Your bank might gather up \$10,000 of my notes that I have in circulation.

Mr. HILL. Yes.

Mr. PRINCE (acting chairman). You would send them all down to New York for redemption. There is \$5,000 in all to redeem. What would be done with those notes?

Mr. HILL. The probabilities are that your redemption bank in New York would telegraph you that you were short on your account, and to make it good immediately. That is the probability. The United States Government goes ahead here and pays it. Why? Because the notes are secured by bonds.

Mr. PRINCE (acting chairman). No; this is on uncovered currency.

Mr. HILL. Yes; but I say that the same thing has occurred over and over again with the redemption division of the Treasury. But the probabilities are that your redemption bank in New York would pay those notes. They would not be obliged to, but the probabilities are that they would pay them and telegraph you to make your account good.

Mr. PRINCE (acting chairman). Let us take it the other way—that they did not pay those notes. How then?

Mr. HILL. You would go to protest.

Mr. PRINCE (acting chairman). Then, what would be the effect of one bank note going to protest in this country? Would it not destroy all of them?

Mr. HILL. No; I think the notes would be perfectly good under the provisions of the bill—no question about it.

Mr. PRINCE (acting chairman). They are good, but would not the public take them with a little doubt?

Mr. HILL. No; I do not think so. I think the consciousness that the notes would ultimately be met would make them just as acceptable as the Canadian bank notes now. When a bank failed in Canada the other day nobody worried about the notes. They knew that the security was sufficient with the other banks, and they just passed without any serious consideration being given to it then.

Now, as further proof of the claim that the asset notes issued under

the committee plan would be a permanent circulation, an inflation of the currency just so much, I would ask you gentlemen to read a circular just issued by Fisk & Robinson, of New York. Of course, their object is to get a good market for bonds, and they point out the way in which the law can be used with the greatest profit to the banks and the bond dealers as well. What is their conclusion? That the best plan for the banks, under this scheme, is to retire circulation to 75 per cent and then take out 25 per cent of the 2½ per cent circulation, ignoring entirely your 12½ per cent emergency circulation taxed at 5 per cent. They are in business, and not for health or patriotism. They have just grabbed onto and clutched the situation that will be the most profitable for the bank, and it inevitably follows, if it is as their circular says, that the banks will take out this 25 per cent of asset notes with the 75 per cent of bond-secured circulation, and it will stay out.

Mr. CALDERHEAD. In this clearing-house illustration you spoke of, would the clearing house be authorized to accept any other securities than the credit fund?

Mr. HILL. It depends on the clearing house. You have got to get an association of interests in these banks in order to get an efficient redemption and make an asset-currency system successful. So long as they stand, each bank on its own footing, with no interest to be considered except its own, I do not see how you are going to get a successful working of the redemption system.

Now, I would center it all in one great institution located at Washington, as I said, with the control of that institution diffused. If that be too radical, get down to the Canadian system, where they have 38 banks, or to the clearing-house system by districts.

Mr. MCCREARY. Coming back to your central bank idea and the election of the directors one from each State, as you have suggested, that would require them to come from their different States and live where the bank is located?

Mr. HILL. The directors?

Mr. MCCREARY. Yes.

Mr. HILL. By all means. A director who is not present and does not direct ought not to be elected. By all means.

Mr. MCCREARY. They would be out of touch, then, in regard to their State interests.

Mr. HILL. Not at all, any more than you are out of touch with your district.

Mr. MCCREARY. Yes; but when I am here for my district I am representing my district on certain lines. I am not lending money.

Mr. HILL. Their treasure is in the State, and where their treasure is their heart would be also.

Mr. MCCREARY. That may be, but I would want to be on the spot where the money is loaned rather than away from the spot where the money is loaned. I would not want to loan money down here, because I do not know the situation.

Mr. HILL. We are a big country. I see Mr. James J. Hill says that in forty-four years we will have 205,000,000 people, and I guess we will; but we can not ignore the experience of all the rest of the world, and I do not believe you can find anywhere in the world any such absolutely disjointed and dissevered fragments of a financial system as you find in the United States.

Mr. BERRY. That is right.

Mr. HILL. Now, can we overcome that handicap and remove the prejudice against centralization, and not only remove the prejudice, but actually remove the centralization and yet have the combined body?

Mr. MCCREARY. The theory is all right, but the practice you will find to be as Mr. Shaw said the other day—that certain of the strong men will get in there, and their personal interests would dominate the situation, and not the interests of the country at large.

Mr. HILL. How could "certain" strong men get in there? There would be only one from each State, but they would be strong men with home interests and knowledge of home conditions and home requirements. The positions would be looked upon as places of great honor and dignity, as are directorships in the Bank of England and the Bank of France, and they would command the best talent of the nation, as they do there. I would not allow that central bank to do one dollar's worth of business with any private patron. I would have them hold the deposits of the United States Government. I would have them have no customers except the 6,000 national and possibly the State banks in the United States to loan to them. In other words, to transact no commercial business whatever, but simply to be the bank of banks, with a diffused control equalized for every State in the nation. Now, that is worth thinking about.

Mr. CALDERHEAD. To take the place of the Comptroller of the Currency?

Mr. HILL. To take the place in some respects of what in the beginning it was intended the Comptroller of the Currency should be. Now he is the head of a bureau only.

I am not going to oppose your bill. I feel a great deal more like helping you in every way I can, but I do not believe you can work out that system successfully without a radical change in our method of control.

Mr. CALDERHEAD. I intended to ask you if the clearing houses would be required to take out Federal charters?

Mr. HILL. Oh, most certainly. I would make the clearing house in the district practically equivalent in all its powers to the central bank that I am speaking of—each one of them with all those powers. You have got to get combination to get redemption. Is not that right?

Mr. PEABODY. It is too big for me.

Mr. HILL. Just one word more. I do not agree with what Mr. Peabody said about issuing bonds solely as a basis of circulation. I do not believe the country will stand anything of that kind. We have got \$116,000,000 of 4 per cent bonds that will mature next July. Do you suppose the country will stand even the refunding of those bonds, with \$140,000,000 surplus money in the Treasury?

Mr. PRINCE (acting chairman). They ought to be paid and the money be put in circulation.

Mr. HILL. Certainly they ought to be paid and the money put into circulation.

Mr. HAYES. There is no doubt about that.

Mr. HILL. I am very much obliged to you. I just wanted to give you a few crude thoughts as raw material for your mental processes.

(At 3.30 o'clock p. m. the committee adjourned.)

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HOUSE COMMITTEE ON THE DISTRICT OF COLUMBIA.

REPORT

OF

HEARINGS OF JANUARY 31, FEBRUARY
6 AND 13, 1907.

ON

H. R. 124, TO REGULATE THE OPERATION OF STREET RAIL-
WAYS IN THE DISTRICT OF COLUMBIA, AND FOR OTHER
PURPOSES; H. R. 7035 AND H. R. 22132, FOR UNIVERSAL
TRANSFERS OVER THE STREET RAILWAY LINES IN
THE DISTRICT OF COLUMBIA; H. R. 23018, FIXING
THE PRICE OF GAS IN THE DISTRICT OF COLUM-
BIA; AND H. R. 23023, REGULATING THE
MANNER OF GIVING TRANSFERS ON
THE STREET-CAR RAILWAYS IN
THE DISTRICT OF COLUMBIA.

Printed for use of the Committee.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1907.



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STREET RAILWAYS AND GAS IN DISTRICT OF COLUMBIA.

COMMITTEE ON THE DISTRICT OF COLUMBIA,
Thursday, January 31, 1907.

Called to order at 10.15 a. m.

REDUCTION OF RATES ON GAS AND UNIVERSAL STREET-CAR TRANSFERS,
DISTRICT OF COLUMBIA.

**STATEMENT OF HON. MARTIN B. MADDEN, A REPRESENTATIVE
FROM THE CITY OF CHICAGO.**

The CHAIRMAN (Mr. Babcock). This meeting, Mr. Madden, has been called, as I understand, at your special request to consider House bills Nos. 124, 7035, 22132, 23018, and 23023, and particularly the two bills that you have introduced, one relating to the price of gas and one relating to street-car service. Which do you prefer to take up first?

Mr. MADDEN. Mr. Morrell suggested to me a day or two ago that a number of people from Philadelphia would probably be here this morning who are interested in the gas question, and I promised him then that if it was his desire and agreeable to the committee I would have the gas bill come up first.

Mr. MORRELL. I do not think that any of the gentlemen have appeared as yet, so if it is agreeable to all we will proceed with the street-railway matter.

Mr. MADDEN. I will take up the gas question first, and then will proceed with the other question.

Mr. SIMS. I want to make the suggestion, that as this is Mr. Madden's bill, he be permitted to ask any question of any witness, and that anyone here may be permitted to ask him questions also.

Mr. MADDEN. That is perfectly agreeable to me, although of course, I may not be able to answer all questions.

The CHAIRMAN. Certainly, there is no objection to that.

Mr. MADDEN. I am not going to make any argument at all, but I would like to make a statement, although perhaps much of what I shall say is already known to members of the committee.

The Washington Gaslight Company was organized in 1848 with a capital of \$50,000. August 2, 1852, this capital was increased by authority of law to \$350,000. January 3, 1855, it was increased by adding \$150,000, making the capital at that date \$500,000. May 24, 1866, it was increased by adding \$500,000. May 29, 1872, it was increased by adding \$200,000, making in all \$1,200,000.

From time to time since then to 1883 the stock was increased in in curiously irregular amounts, as follows:

1873.....	\$29, 666	1879.....	\$5, 650
1874.....	59, 142	1880.....	123, 080
1875.....	56, 376	1881.....	2, 215
1876.....	275, 158	1882.....	123, 600
1877.....	408	1883.....	1, 400
1878.....	123, 305		

Making in all \$800,000, bringing the capital up to \$2,000,000.

It has been stated in reports to Congress that the first \$500,000 was paid in in cash, but upon examination of the officers of the company it was developed that their information was based upon inference and hearsay.

The books of the company showing the money paid into the company and by whom paid, including stockholders, and the disposition made of it—in other words, showing the financial transactions of the company for eighteen years, 1848 to 1866—were sold to a Philadelphia paper house for \$100, to be used in the manufacture of paper, and thus the records of the company were destroyed.

It is admitted that \$500,000 of stock was issued at one time without any payment of money into the treasury of the company. How much more no one has been able to discover.

It is admitted by the officers of the company that from its organization to 1886 it paid in dividends to the stockholders \$6,201,812. Of this sum there have been declared and paid since January 1, 1866, dividends amounting to \$5,699,062.

The increase in the capital from 1872 to 1883 was evidently without authority and from earnings of the company above the dividends, the stock for which was issued without payment into the treasury by anyone.

As near as can be ascertained the dividends paid by the company were—

	Per cent.		Per cent.
1850.....	6	1858.....	10
No dividends in 1851-52.		1859.....	10
1853 (on \$350,000 capital).....	8½	1860.....	10
1855.....	10	1861.....	10
1856.....	10	1862.....	10
1857.....	10	1863.....	10

It is alleged that no dividends were paid in 1864-65, but the truth of the statement can not be ascertained.

In February, 1866, 5 per cent was paid on \$500,000, and in August 5 per cent on \$1,000,000.

	Per cent.		Per cent.
1867.....	10	1877.....	15
1868.....	10	1878.....	15
1869.....	20	1879.....	15
1870.....	10	1880.....	15
1871.....	15	1881.....	10
1872.....	15	1882.....	10
1873.....	15	1883 (on \$2,000,000 capital).....	50
1874.....	55	1884.....	10
1875.....	20	1885.....	12½
1876.....	65		

although the company earned 17½ per cent.

The treasurer of the company stated in a letter to the Hon. Samuel J. Randall, in February, 1881, that "for thirty-one and one-half years the average of cash and stock dividends has been 16.8 per cent."

It was stated in the letter referred to in 1881, as follows:

The probable near approach of the advent of the electric light for street and house illumination has seriously affected the value of gas-works property, and its final success must cause the owners some still further injury, should it not render their property almost valueless. Under these circumstances the board of directors of this company have deemed it a duty to the stockholders they represent to prepare for this contingency, and they have retained and invested a cash balance of \$650,000, to be held in reserve, to enable the company to make such additions to their works as will allow them to reduce the price of gas to its lowest point, both for illuminating and fuel purposes, in hope that a very large increase of consumption may compensate them for the outlay.

You will note that as early as 1881 the secretary of the gas company was willing to admit, over his signature, that the reduction in price of gas could well be hoped to increase the consumption, and that the increased consumption might be expected to increase the revenues.

The fear of the electric-light competition had evidently vanished in 1883, as had also the intention to expend such money in additions so as to allow a reduction of the price of gas to the "lowest point," for in 1883 this \$650,000, and much more, were divided among the stockholders and not invested in the plant to increase its economy of production and its facility for competition.

Rates of interest everywhere throughout the country have gone down in the last few years. Dividends on capital invested in every kind of business have been reduced, and it seems that this company should not expect or demand that it should be permitted to charge forever the people of Washington and the Government of the United States a price for gas and gas service which shall enable them to earn dividends so much in excess of other investments.

I am glad, indeed, to have an opportunity to put my money into an enterprise that will pay me 6 per cent interest, or 5 per cent, if I am sure that I can get the 5 per cent, and at the same time preserve the principal. And if I should wish to increase my revenue I would expect to be able to have an increased principal upon which to base the revenue. The gas company here, it seems, feels that it should should not only be able to collect large dividends on the gas consumed by the people, but it should be allowed to charge such a price for gas as will enable them to accumulate a large surplus, to invest this surplus in the extension of its mains, and upon that extension of mains secure increased consumption, and upon that increased consumption be allowed to charge the price that is now charged for gas, thereby adding to its capital and the earnings upon that capital without having invested any money excepting the money that is wrung from the pockets of the people of the District, who are necessarily consumers of gas.

The fair way, it seems to me, for anybody to transact business is to be allowed to earn a reasonable dividend on the money actually invested, and this should be particularly true with a public-service corporation. It secures its life from the people, and the people should have the right to regulate its habits. All its transactions should be open to the representatives of the public, and the character

of the public-servants can only be measured by the interest the public servants take in the public business. It is not fair to assume that a great public-service corporation like the gas company of this city should be allowed to go without making public the business it transacts upon the privilege which it secures from the public authorities. It has openly and defiantly refused to make such public statement of its business, and because of its refusal to do so no one has yet been able to ascertain definitely just what it costs the company to make gas.

The CHAIRMAN. I would like to say, Mr. Madden, that since the committee assembled this morning a statement has been filed exactly in line with what you now suggest, going into detail as to the expenses and receipts for the past year, and made upon the same lines followed by the street-car companies and sworn to by the party who examined the books, as well as the treasurer and the secretary.

The report referred to is as follows:

WASHINGTON GASLIGHT COMPANY,
Washington, D. C., January, 31, 1901.

HON. J. W. BABCOCK,
Chairman District Committee, House of Representatives.

DEAR SIR: The statement intended to show the cost of making gas for the year 1906, forwarded to you by the Commissioners, was furnished to them by the company's secretary, Mr. Orme, on the day of his return from a two months' sick leave, upon one day's notice, in response to an urgent request from Commissioner West and was made up before the books for the year were balanced. When the books were balanced a few days ago, it was discovered that the statement contained errors which overstated the cost of making gas by 1½ cents per thousand cubic feet. The company therefore, concluded to furnish you a more precise report, verified by an independent accountant of high standing in this community, which is herewith inclosed.

Respectfully submitted.

R. H. GOLDSBOROUGH,
For the Company.

Statement of receipts and expenditures showing gross cost and net cost (exclusive of dividends and capital charges of all kinds) after crediting the manufacturing account with all receipts from by-products of making and selling gas for the year ending December 31, 1906.

Receipts:

From sales of gas.....	\$1, 563, 603. 38	
Good bills for December, 1906.....	181, 888. 35	\$1, 745, 491. 73
Ammoniacal liquor.....	4, 559. 66	
Coke.....	35, 626. 40	
Tar.....	13, 437. 59	
		53, 623. 65
Total receipts from gas and gas products.....		1, 799, 115. 38

Total number of cubic feet sold..... 1, 729, 922, 035

Actual cost per thousand:

Gross.....	cents..	69. 403
Net.....	do...	66. 304

OPERATING EXPENSES, INCLUDING TAXES, BUT EXCLUDING CAPITAL CHARGES OF ALL KINDS.

Coal, 53,825 tons 951 pounds.....	\$192, 229. 40
Coal, steam, 3,589 tons.....	10, 135. 41
Oil, 6,946,738 gallons.....	329, 577. 82
Wages and salaries, not including wages charged in distribution, works, expense, repairs, construction, meter, lamps, and other accounts.....	206, 247. 40

Taxes paid to collector, District of Columbia.....	\$103,820.42	
Water rent.....	4,006.05	
Inspector of gas and meters.....	4,295.80	
District of Columbia inspector of plumbing.....	947.68	
		<u>\$113,069.95</u>
Lime and purifying material.....		8,269.14
Orders and distribution department:		
Wages.....	42,523.15	
Material (including repairs asphalt pavements).....	15,625.81	
		<u>58,148.96</u>
Advertising.....		5,620.57
Expense:		
Office.....	9,449.08	
West works, including—		
Wages.....	\$27,726.97	
Material.....	3,718.59	
		<u>31,445.56</u>
East works, including—		
Wages.....	21,341.01	
Material.....	1,638.77	
		<u>22,979.78</u>
Legal.....	22,166.12	
		<u>86,040.54</u>
Insurance, general and liability.....		6,197.61
Repairs:		
General.....		14,538.16
East station.....		9,813.13
Meters—		
Wages incurred.....	\$12,888.10	
Material, etc.....	2,645.63	
		<u>15,533.73</u>
Street mains—		
Wages incurred.....	14,557.37	
Material, etc.....	447.67	
		<u>15,005.04</u>
Street lamps.....	22,306.50	
Lamp-posts and lanterns.....	7,500.00	
		<u>29,806.50</u>
Service pipe.....		189.46
Interest on collateral deposits.....		5,736.25
Damaged and worn-out meters destroyed.....	\$4,092.64	
Bad bills for gas charged off.....	1,106.52	
Damages account.....	12.50	
J. H. & L. A. Foster case.....	1,200.00	
Annie G. Bell case.....	888.60	
Washington Gaslight Company's Employees Relief Association.....	775.00	
Charity subscriptions, etc.....	540.35	
Sundries destroyed in fires.....	65.64	
Renewal of boilers.....	3,792.00	
Renewal of water-gas plant.....	11,350.00	
Repairs and additions to purifying plant (one-half)....	5,650.00	
		<u>29,473.25</u>
Amount estimated by Mr. McIlhenny to be necessary to complete renewal of buildings and machinery destroyed by fire at the east station works.....		65,000.00
Net income from operation without deduction for depreciation of plant.....		598,483.06
Income from rents and securities.....		15,680.45
		<u>614,163.51</u>
Gross income less operating expense.....		
Less payments for—		
Dividends.....	\$260,000.00	
Interest.....	179,948.00	
Construction and extension account:		
One-half of purifying plant.....	5,650.00	
Wages.....	3,969.04	

Construction and extension account—Continued.

Meters	\$13,587. 14	
Street mains	33,302. 42	
Sundries, account works	9,214. 93	
Real estate purchased	534. 00	
Do	3,597. 76	
Do	5,980. 39	
Balance	98,379. 83	
		<u>\$614, 163. 51</u>

Funded debt (rate per annum on funded debt, 4 per cent and 6 per cent, averaging 5.625 per cent)	3,200,000. 00
Amount of capital stock	2,600,000. 00

I, William B. Orme, secretary of the Washington Gaslight Company, do hereby swear that the foregoing annexed statement is just and true to the best of my knowledge and belief.

WM. B. ORME, *Secretary.*

Subscribed and sworn to before me this 30th day of January, 1907.

[SEAL.]

WM. P. YOUNG, *Notary Public.*

AMERICAN SECURITY AND TRUST COMPANY.

Washington, D. C., January 30, 1907.

I have compared the above statement with the books of the Washington Gaslight Company, from which the items in it are taken, and I find that it is correct.

I also find that the books carry no depreciation account.

H. S. REESIDE,

Treasurer American Security and Trust Company.

Mr. MADDEN. I am glad to hear that, Mr. Chairman, and to know that that sort of a statement has been furnished.

The CHAIRMAN. It is at your service, of course.

Mr. MADDEN. And I am glad that we have succeeded in producing some sort of result by our public agitation of this important question. I doubt if the company would have condescended to make such a statement if we had not been at least endeavoring to secure legislation upon the question. I know that last year we tried to get such information, but we were not able to do it.

It was believed in 1886, when the Senate committee, of which Mr. Spooner was the chairman, reported on this subject, that 7 per cent on the capital invested would be a fair remuneration for those who were interested in the gas business here. The price of gas was then reduced from \$1.50 to \$1. The company has seemed to prosper quite as well since the latter price has obtained as it did before. The price of gas in large centers all over the country is being reduced below a dollar. The reasonable price at which it can be made and delivered, not taking into account a large bonded indebtedness, is about 51 cents, and that is a liberal price. I shall endeavor later on to show what composes this cost. If that be true, there is no reason why it should not be profitable to furnish it to the consumer at 75 cents.

Now the fair profit to the manufacturer of gas is variously estimated at 6 per cent, or \$3, \$4, and \$5 for each thousand feet of gas furnished. That would be on the assumption that the plant and all of its equipment would amount to \$3, \$4, or \$5. But the fair average rate of investment would be considered as \$4 for each thousand feet of gas made. ■■■■

The CHAIRMAN. Now let me understand that. That is the investment in the plant?

Mr. MADDEN. Everything connected with the plant, including the cost of manufacture and the cost of its distribution; and that includes not only all the material, labor, and supplies, and everything of that kind, but all the depreciation and repairs and contingencies. I will enter into that and show you in detail just what it amounts to.

The CHAIRMAN. Let me understand. If they produce 1,000 feet of gas the capitalization would be \$4,000, and if they produce 100,000 feet of gas it would be \$400,000. Is that right?

Mr. MADDEN. You could not build a plant to make a thousand feet of gas, but that is the way the capitalization ought to be; and the fair rate of interest to be drawn on that would be, say, 6 per cent on \$4 for every thousand feet of gas made, which would be 24 cents a thousand feet. If you take 51 cents as a fixed price of the gas delivered to the consumer and add the 24 cents, it will make the price 75 cents, upon which I have based the bill introduced by me.

The Spooner committee in 1888 says the statement of items of wages, salaries, repairs, and expenditures made by the company contained duplications and expenditures not proper to be considered "elements in the cost of gas."

The committee was not satisfied with the testimony as to the cost of coal. The committee report that the investigation developed that in the coal account 15 cents per ton of coal for handling after delivered was figured as an element in the cost of gas and that the same item was also included in the wages account. The committee feared after having made that discovery that an examination of the books and vouchers would reveal the same fact as to other items.

Mr. Patton, who was in the service of the Government in the Patent Office in 1886, testified that he was for years a gas engineer of a water-gas company at Harrisburg; that he made gas by the Lowe process, and distributed it at a cost of 46 cents per 1,000 feet and charged for it to consumers \$2 per 1,000 feet.

It does not make much difference whether you make coal gas or water gas so far as the cost of the gas is concerned. There is more labor and more coal consumed in the coal-gas process than there is in the water-gas process, but considering the sale of the residue of the coal-gas process, the actual net cost of manufacture is the same or substantially the same as the manufacture of water gas.

The CHAIRMAN. Will you kindly tell the committee the difference between coal gas and water gas?

Mr. MADDEN. The way they make water gas is by putting so many gallons of oil and so many pounds of coal, to enrich the gas, together, manufacturing it in that way, whereas they would make the coal gas from the coal in retorts, and then what is left is coke and other residuals, which is sold to the public. Water gas is made from oil, water, and coal, about 5 gallons of oil being used to 20 or 25 pounds of coal, with some water. It is a different process with very little labor, while a large amount of labor is used in the manufacture of coal gas.

Mr. SIMS. Can you tell us whether the gas made for the District of Columbia is by the coal or the water process?

Mr. MADDEN. They have two processes here, one coal and one water, and they mix the two.

Mr. OLCOTT. Both for illuminating and fuel purposes?

Mr. MADDEN. Yes, sir.

The CHAIRMAN. What is the candlepower furnished here?

Mr. MADDEN. I understand their standard is 16 candlepower.

The CHAIRMAN. No; it is 22 candlepower. During the last month the gas furnished here, according to my bill, was 3.55 candlepower. That was originally fixed at 26 candlepower, but it was reduced to 25, and is reduced to 22 now as a minimum. I do not want to take up your time, but I would like to have an expression on that from you. The claim has been made by the company that they can furnish an 18-candlepower gas, and do it for less money, and perhaps it would be as satisfactory as the gas that Congress insists upon their making now.

Mr. MADDEN. I think a 20-candlepower gas will give you all the satisfaction that a 22, 23, or 24 candlepower gas will give you.

The CHAIRMAN. But you do not get the same light?

Mr. MADDEN. Yes; it is just as good. I think you will find that you do not always get the light that you think you are paying for, although the presumption is that you are paying for the added candlepower.

The CHAIRMAN. But it is tested every day by the Commissioners of the District of Columbia.

Mr. MADDEN. I know it is claimed that they test it every day, in the daytime. The man who has charge of the testing plant is on duty between the hours of 9 o'clock in the morning and 2 o'clock in the afternoon, a time when very few are using the gas. He does not test the gas at night.

It may be interesting to note the prices charged by some foreign companies. At Birmingham an average price of 54 cents per thousand feet is charged; Bradford, 60 cents; Bristol, 56 cents; Dublin, 90 cents; Glasgow, 84 cents; Leeds, 44 cents; Liverpool, 66 cents. These are private companies.

Mr. CAMPBELL. Is it a private company furnishing gas at Glasgow?

Mr. MADDEN. They are all private companies.

Mr. OLCOTT. Do you think that the gas furnished in Liverpool, Dublin, and Glasgow is as good as the gas furnished here in Washington?

Mr. MADDEN. I do; most decidedly.

The CHAIRMAN. Do you know the candlepower of the gas furnished in those cities?

Mr. MADDEN. No, sir. London, 64 cents; Newcastle, 50 cents; Nottingham, 54 cents; Sheffield, 48 cents—yes, I see that I have the candlepower here, and it is 16.6.

Mr. OLCOTT. Does that apply to London also?

Mr. MADDEN. That is the average candlepower of these 16 companies, and the average selling price is 64 cents. That applies to all. There is a difference because of the cost of labor, which is much less than in this country.

Mr. OLCOTT. Can you not get coal cheaper at Birmingham?

Mr. MADDEN. Oh, yes; they can get coal cheaper than we do because they are near the coal mines.

Mr. BEIDLER. Have you figured with relation to the cost of 22-candle power over 16-candlepower, the increased cost of production?

Mr. MADDEN. I don't know that I will be able to tell you that off-hand.

Mr. BEIDLER. You can see that there is a difference in cost?

Mr. MADDEN. I presume there would be some little difference, but not much.

Mr. E. W. OYSTER. It is stated that the price of Sheffield gas is 48 cents. I want to say that I have the last report issued by the Bureau of Labor of an investigation made for the Government by a Government official sent there for the purpose, who reports that the price of gas in Sheffield, furnished by a private company, is 28 cents for manufacturing purposes, 32 cents for heating purposes, and 36 cents for illuminating purposes.

Mr. MADDEN. That is a later date, I presume.

Now, since 1883 the capital of the company has been increased from time to time out of the earnings of the company and the dividends have been continued at the rate of 10 per cent annually, as well as occasional extra dividends for large amounts having been declared at different times. The earnings of the company have been phenomenal. It is not claimed by anybody that the capital represents much of anything but earnings.

According to the testimony of Mr. McLean, president of the company, in 1893 the gross receipts were \$1,135,305.60; the expenditures, exclusive of dividends and extension of works, \$681,277.57, leaving a net earning of \$454,028.03. Deducting from this net earning \$200,000, a dividend of 10 per cent on the capital stock, leaves a surplus of \$254,028.03, and deducting from this surplus \$89,500, invested in the extension of the works, leaves a net surplus of \$164,528.03.

That is but a fair sample of the prosperity of the company from the day of its organization.

Since the price of gas has been reduced to a dollar the dividends have continued and the surplus has grown, as I am advised, until it seems there can be no doubt of the propriety of asking a reduction in the price to be paid by the consumer to 75 cents.

The city of New York recently reduced the price of gas to 80 cents per thousand feet, after a most careful investigation as to its cost. The city of Chicago to 85 cents. At the time the price of gas was reduced to 85 cents in Chicago, the company reduced its dividends from 6 to 5 per cent. The last declaration of dividend was at the rate of 6 per cent, so that the earnings of the company had not been materially affected by the reduction.

The price of gas at 85 cents in Chicago, with the enormous bonded debt, in addition to a large capitalization, is much less than 75 cents would be here, because of the fact that the company has no bonded debt to speak of.

Mr. Meagher, attorney for the Peoples Gas Company of Chicago, stated to a committee of the city council of Chicago on November 23, 1905, that the books of the company showed the cost of manufacture and distribution of gas by his company to be 53.53 per thousand cubic feet. This was divided. (See pamphlet.)

Mr. Roger C. Sullivan, representing the Ogden Gas Company, made a statement to the same committee at the same time with reference to the cost of gas supplied by his company. He gave

81.76 per thousand feet as the cost of manufacture and distribution, including a sufficient amount to pay bond interest, but no dividends on stock. He gave the cost of manufacture and distribution at 49.67, allowing 26.86 for manufacture and 22.81 for distribution. (See pamphlet.)

I will read you from this pamphlet that I have here the report of the committee on gas, oil, and electric light to the city council of Chicago, dated January 29, 1906. [Reads]:

Early in the proceedings of the committee Mr. Meagher, representing the Peoples Company, stated that the cost of manufacture and distribution of gas for his company to be 53.53 cents per thousand cubic feet. This was divided into cost of manufacture and cost of distribution, with the various items considered in each, as follows: Nineteen hundred and four. Manufacturing items: Generators, coke, oil, boilers, coal, labor, generator house, purifying house, engineers, foremen, clerical force, chemists, watchmen, teaming, repairs to buildings, apparatus, tools, and implements, supplies and materials purchased, less credit from residuals—cost in holders, 31.82 cents.

The distribution items were: Meter repairs, main repairs, service repairs, gas stove repairs, general expense, including amounts written off, etc., office expense, New York office expense, legal expense, governor house expense, street expense, store expense, appliance expense, wages and salaries, meter setting, statement taking, turn on and cut off, complaints, general inspection, burner inspection, fittings inspection, meter deposit interest, rent, competition, lamp account, uniform account, advertising, employees' aid, pensions—

you will notice, gentlemen, that they have a system of pensions among their employees—

thawing, gas stove complaints, gas lost, taxes and insurance, amounting to 21.71 cents, or making a total of 53.53 cents.

To this he stated should be added 35 cents per thousand feet sold to cover bond interest and dividends on capital stock at the rate of 6 per cent per annum, thus making the total cost 88.53 cents per thousand cubic feet.

Now, if 35 cents was necessary to be added to this to cover bond interest in Chicago, and yet this company is able to sell gas to the consuming public at 85 cents, at the same time paying 6 per cent dividends to its stockholders on \$68,000,000 worth of stock, how much easier would it be for the gas company of this city to sell gas to this community at 75 cents and still make a larger profit than the People's Gas Company of Chicago makes at the price at which they sell gas.

Mr. SIMS. What is their bonded indebtedness?

Mr. MADDEN. Fifty-five millions of dollars.

Mr. SIMS. And the stock?

Mr. MADDEN. Sixty-eight millions of dollars.

Mr. OLCOTT. Does that represent the actual cash investment?

Mr. MADDEN. Certainly not, and neither does the capital of any other gas company represent actual cash investment.

Mr. OLCOTT. I did not know but what it did in Chicago.

Mr. MADDEN. Well, Chicago is not unlike New York; and perhaps in a miniature way Washington is not far behind.

Mr. SIMS. I will ask you if any city has got far enough along not to strike water when it goes to fixing up stock?

Mr. MADDEN. No. That would make, according to the attorney's statement of the Peoples Gas Company, in Chicago, a gross

price of 88.53 cents per thousand. You can thus see why Chicago has settled upon a basis of 85 cents per thousand, and upon that basis the company is paying 6 per cent dividend, and I don't know how much surplus they are accumulating; but they are paying dividends.

Mr. SIMS. At what price is the stock selling?

Mr. MADDEN. At about 90, now; but it varies according to the intentions of the people who control the market. It runs up to 150 sometimes, and down to 85 sometimes, depending upon what is necessary.

Mr. SIMS. What is the price of the bonds?

Mr. MADDEN. Away above par. The bonds bear 5 per cent interest.

Mr. OLCOTT. Do you know the price of the stock here?

Mr. MADDEN. No, sir; I do not. I did not know that they had any stock, even. I never look at the ticker.

Mr. OLCOTT. I never do either.

Mr. MADDEN. I have been charged by some gentlemen who are interested in the public corporations here with having ulterior motives and an endeavor to do a stock-jobbing business on account of my interest in the people's welfare of this community. I have no apology to make for my interest in the welfare of this community, and I think it is the duty of a public servant to do what I am doing.

Mr. SIMS. I see in the Washington newspaper here the stock of the gas company is quoted at \$57 per share.

Mr. MADDEN. Now, Professor Bemis was called in to testify in relation to the cost of manufacture of gas in connection with the instance that I have described to you. Mr. Bemis, by the way, is recognized as one of the most efficient gas experts in the world. I will read: "He stated at the outset that he had no practical experience as a gas manufacturer, but that from a scientific standpoint he had investigated almost every plant of any consequence in the world. He approached the subject wholly from a statistical standpoint and submitted much data which he had collected bearing upon the cost of the manufacture and distribution, cost of plant, and on the subject of capitalization in a number of cities in the United States and Canada, data which he applied so far as possible in making comparisons with the city of Chicago. Mr. Cowdery advised the committee in detail regarding the methods and processes of manufacturing illuminating gas, considering materials used in the same, and analyzing minutely the different elements which enter finally into the cost of supplying gas, such as labor, materials, repairs, renewals, depreciation, reserve, and capitalization, and income upon capital invested.

"Then there was submitted the conclusions reached by the experts regarding the reasonable price for gas in the city of Chicago. On the cost of manufacture Mr. Bemis gave the following figures: 26.36 cents, cost of distribution 21.71 cents, and additional allowance for current department 3.89 cents, making a total of 51.96 cents. Also allowance for extraordinary depreciation 3 cents, and allowance for bond interest and dividend 19.20 cents, making a total of 74.16 cents. Making those allowances, and when you figure the bond interest according to Mr. Bemis, and the cost of manufacture, the cost of distribution, the cost of depreciation, the cost of repairs, the cost of extraordinary depreciation, which includes taxation and all

other things of that kind, the price would be, after paying a dividend and everything, 74.16 cents." The information that I have just given you is taken from the report which I have here.

Mr. CAMPBELL. That was relative to one of the companies in Chicago?

Mr. MADDEN. Yes, sir; there were two companies only there, and they were fixing the price of gas for the whole city for all companies.

Mr. CAMPBELL. When were those computations made?

Mr. MADDEN. Last year.

Mr. SIMS. Is Professor Bemis a gas manufacturer?

Mr. MADDEN. No, but an expert; a scientist.

Mr. WILEY. As I understand it, the coal used in Chicago is the Allegheny coal which comes from Pittsburg.

Mr. MADDEN. Yes; and they pay for it about four or five dollars a ton.

Mr. OLCOTT. About the same as they do here?

Mr. MADDEN. Yes; there would be no difference of any consequence. Mr. Cowdery fixes the cost of manufacture at 30 cents, and he is a gas man.

Mr. BEIDLER. Where does Mr. Cowdery live?

Mr. MADDEN. I think he represents some gas company, which is stated in this report, but I do not call it to mind at present. Mr. Cowdery gives the cost of distribution at 23.75 cents, making a total cost of manufacture and distribution, 53.75 cents. For the reserve—that is, accruing depreciation and contingencies, 10 cents, and allowance for bond interest and dividends at 34.92 cents. Making a total cost of 98.67 cents.

Mr. TAYLOR. That extra 10 cents for the reserve makes the difference.

Mr. MADDEN. Not exactly, because he allows 34.92 cents for dividends and bond interest, whereas the other man allowed 19.20 cents. Professor Bemis was not talking about the company, but the conditions that ought to obtain. Assuming that you have a legitimate bonded debt and a legitimate capitalization, 19.20 cents would be a fair amount to charge for each thousand feet of gas for bond interest and dividends.

Mr. SIMS. Can you give the committee any information as to what it would cost to reproduce the property of this gas company here?

Mr. MADDEN. No; I have no idea at all. I have simply taken the question up generally. I have not gone over this plant, but have taken it just the same as any other plant of a similar nature, assuming that they have built it to accomplish the work in the most economical way, and that it has been constructed to get the best results.

Mr. SIMS. I notice that your bill does not include the Georgetown Gas Company?

Mr. MADDEN. It is intended to cover all the gas plants in the District of Columbia.

Mr. OLCOTT. This Mr. Cowdery is the man now at the head of the St. Louis company, and formerly of the Milwaukee company, is he not?

Mr. MADDEN. I rather think so, Mr. Olcott. It is all in this pamphlet, and I am going to file this report with the committee, for I think it is the most exhaustive thing that has ever been gotten up on the cost of manufacture and distribution of gas.

Mr. OLCOTT. That is the report of the result reached in Chicago?

Mr. MADDEN. The result of the investigation there; yes, sir.

Now, here is something that is very interesting in connection with it. [Reads]:

The repairs on the plant ran to about 1.44 cents a thousand. The repairs and renewals at the works were 2.46 cents, but the renewals at the works of course did not enter into the distribution of gas, but there was set aside 5 cents for depreciation, which was to be naturally divided between the manufacturer and the distribution of the gas, and if we assume that 2 cents of it went into distribution, that we add to the 1.44 cents, making 3.44 cents for what would amount to taking care of the maintenance and repairs of the distribution system.

I do not know that there is very much more that I care to say on this question. I think that gas, without any question, can be produced at from 48 to 50 cents per thousand, and as high as 24 candlepower at that price.

Mr. CAMPBELL. What candlepower do they produce in Chicago?

Mr. MADDEN. Twenty candlepower.

Mr. SIMS. I would like to ask you to mark out and designate in that report such portions as you wish to put into the record.

Mr. MADDEN. If you want anything you want it all, because it is very interesting and instructive.

Mr. SIMS. You had read only a part of it.

Mr. MADDEN. I only read what I wanted to use in presenting the case as to the cost, but the whole thing is so complete that if you miss any of it, you miss an education in the gas business. Here, as shown in the pamphlet, is the way the council reached the conclusion when they were figuring, and they finally reached the price at which they fixed the gas. I will submit the whole thing.

Following is the report referred to:

REPORT OF THE COMMITTEE ON GAS, OIL, AND ELECTRIC LIGHT TO THE CITY COUNCIL OF THE CITY OF CHICAGO, JANUARY 29, 1906.

To His Honor the Mayor and the Members of the City Council:

Your committee on gas, oil, and electric light, to whom was referred an ordinance introduced by his honor the mayor, with an accompanying message, at the meeting of the city council held November 13, 1905, recommending the establishment of a rate of 75 cents per thousand cubic feet for gas, respectfully submits herewith its report:

The last general assembly passed an act, approved May 18, 1905, and adopted by the people at the general election held last November, giving the city of Chicago the right to establish maximum rates to be charged for the sale of gas and electricity. Such act provides that such rates must be "just and reasonable." Regardless of this direction of the act itself, the principle is doubtless well established in law. Your committee, therefore, regarded it as necessary to make a thorough and careful investigation into the subject of the cost of manufacture and distribution of gas in this city. By virtue of an order passed by the city council December 4, 1905, this committee was directed to make a thorough investigation to determine what might be considered a reasonable price for gas in the city of Chicago. The duty therefore rests upon the council to fix a reasonable price. It is very necessary, therefore, that whatever price is fixed by this body must be a price whose reasonableness can be established, if

necessary, by the city, in case of litigation in the courts. The establishment of a price without proper inquiry might mean eventually the loss of all it is hoped to gain under the authority recently given the city.

There are two companies manufacturing gas in this city, namely, the People's Gas Light and Coke Company, selling approximately 11,000,000,000 cubic feet of gas per annum, and the Ogden Gas Company, selling approximately 1,000,000,000 cubic feet of gas per annum. Throughout this report, wherever reference is had to these companies, the People's Gas Light and Coke Company is referred to, for brevity's sake, as "The People's Company," unless otherwise specifically stated.

In addition to these two companies there is the Universal Gas Company, with a limited number of consumers, but the bulk of whose output is sold to the People's Company and by this company distributed. At the beginning of this investigation representatives of the People's Company and the Ogden Company were invited to be present.

The possibility of reaching an agreement between the city and the companies, with reference to a price to be established, was suggested on the floor of the council, and subsequently by the mayor at the first meeting of the committee held for the consideration of this subject, November 23, 1905.

Early in the proceedings of the committee Mr. Meagher, representing the People's Company, stated the cost of manufacture and distribution of gas for his company to be 53.53 cents per thousand cubic feet. This was divided into cost of manufacture and cost of distribution, with the various items considered in each, as follows:

	1904.	Cents.
Manufacturing items:		
Generators: coke, oil; boilers; coal; labor, generator house, purifying house, engineers, foremen, clerical force, chemists, watchmen; teaming; repairs to buildings, apparatus, tools and implements; supplies and materials purchased; less credit from residuals—cost in holders.....		31.82
Distribution items:		
Meter repairs; main repairs; service repairs; gas stove repairs; general expense, including amounts written off, etc.; office expense; New York office expense; legal expense; governor house expense; street expense; store expense; appliance expense; wages and salaries; meter setting; statement taking; turn on and cut off; complaints; general inspection; burner inspection; fittings inspection; meter deposit interest; rent; competition; lamp account; uniform account; advertising; employees' aid; pensions; thawing; gas stove complaints; gas lost; taxes and insurance—amounting to.....		21.71
		53.53

To this, he stated, should be added 35 cents per thousand feet sold to cover bond interest and dividends on capital stock, at the rate of 6 per cent per annum, thus making the total cost 88.53 cents per thousand cubic feet.

This statement was accompanied by an offer on the part of the company to establish a price of 90 cents per thousand for gas, with the understanding that upon the acceptance of such a price by the city all legal proceedings between the city and the company should cease, and that some amicable agreement should be reached regarding the dispute between the company and the city with reference to compensation claimed by the city and the claim of the company against the city for gas sold.

Mr. Roger C. Sullivan, representing the Ogden Company, made a statement to the committee with reference to the cost of gas supplied by his company. He gave 81.76 cents as the cost of manufacture and distribution, including a sufficient amount to pay bond interest but no dividends on stock. He gave the cost of manufacture and distribution as 49.67 cents, allowing 26.86 cents for manufacture and 22.81 cents for distribution.

Mr. Meagher, representing the People's Company, consented to have the committee select a chartered accountant to verify the figures as presented by his company. This arrangement was made with the understanding that because of pending litigation such accountant should treat as confidential the figures of the company as thus disclosed to him, the purpose of such examination being only to verify the figures as presented by Mr. Meagher.

Your committee selected as accountants for such examination the firm of Marwick, Mitchell & Co., and the report of the accountants is hereto attached as Exhibit A and made a part of this report.

Under authority of a resolution passed December 4, 1905, the committee decided to engage one or more experts or engineers familiar with the subject of manufacture and distribution of gas to advise the committee.

Your committee summoned as experts on the subject of manufacture and distribution of gas the following-named gentlemen:

Prof. Edward W. Bemis, superintendent of the water department of the city of Cleveland, Ohio, and statistician and writer on municipal affairs and policies, with especial reference to the subject of gas; Mr. E. G. Cowdery, general manager of the Laclede Gas Company, of St. Louis, Mo., and past president of the American Gas Association, and Mr. Alexander C. Humphreys, president of Stevens Institute of Technology, of Hoboken, N. J., and senior partner of the firm of Humphreys & Glasgow, of New York City and London, consulting and constructing gas engineers. Mr. Humphreys was referred to before the committee by Professor Bemis as "the leading authority in the world on gas." Several other authorities whose names were suggested by his honor, the mayor, were invited to appear before the committee, but they failed to respond.

In selecting these three men your committee had in mind not only the obtaining of the best authorities on the subject, but authorities who would represent every phase of the subject. Professor Bemis was selected as representing the theoretical side of the question and that phase of it which is antagonistic to private control of public utilities and strongly favorable to municipal ownership; Mr. Cowdery, as one who for many years has been actively engaged in the construction and management of gas plants, and, lastly, Mr. Humphreys, the head of a great technical school and the leading consulting engineer of America and Europe on the subject of manufacture and distribution of gas, as one who would present the subject from a wholly impartial standpoint, simply as a great engineer.

Each of these three gentlemen was requested, at the close of his appearance before the committee, to submit in writing, his conclusions on the question of a reasonable price for gas in the city of Chicago, and these communications are appended herewith, entitled, respectively, Exhibits B, C, and D, and are made a part of this report.

Professor Bemis stated at the outset that he had had no practical

experience in the manufacture and distribution of gas. He approached the subject wholly from a statistical standpoint and submitted much data which he had collected bearing upon the cost of manufacture and distribution, cost of plant, and on the subject of capitalization for a number of cities in the United States and Canada. He applied this data as far as possible in comparing conditions of such cities with the situation in Chicago.

Mr. Cowdery advised the committee in detail regarding the methods and processes of manufacturing illuminating gas, considering materials used in the same, and analyzing minutely the different elements which enter finally into the cost of supplying gas—such as labor, materials, repairs, renewals, depreciation, reserve, and capitalization, with proper return upon same.

Mr. Humphreys, whose time was limited before the committee, confined himself almost entirely to the discussion of the subjects of repairs and renewals, depreciation, reserve, capitalization, and income upon capital invested.

We submit herewith following comparative tabulation, showing conclusions reached by each expert regarding reasonable price for gas in the city of Chicago:

	Bemis.	Cowdery.	Humphreys.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Cost of manufacture.....	26.36	30.00	31.00
Cost of distribution.....	21.71	23.75	22.00
Additional allowance for current depreciation	3.89		
Cost of manufacture and distribution.....	51.96	53.75	53.00
Reserve (accruing depreciation and contingencies).....		10.00	
Accruing depreciation.....			5.00
Reserve for contingencies.....			5.00
Allowance for extraordinary depreciation.....	3.00		
Allowance for bond interest and dividends.....	19.20	34.92	32.00
Total.....	74.16	98.67	95.00

From the extended statement made before the committee by each of the three experts mentioned, we submit the following summary of each:

STATEMENT OF PROF. EDWARD W. BEMIS, OF CLEVELAND, OHIO.

Given before the committee on gas, oil, and electric light, on Wednesday, December 27, 1905, relative to a reasonable price for the manufacture and distribution of gas.

"My custom has always been in any gas case to seek all the information possible from the company and to consider any facts that have been gathered by the city before taking up and giving definite figures myself. It is always important to base one's testimony on all available sources of information. I have never appeared in a gas case in which I was expected to give information the first day I was in the case. It has always been my custom to consult with the attorneys and committee of the city in gathering information to start with, and then proceed more directly.

"There are some very important matters connected with the cost of gas here in Chicago that vary from year to year; the price of oil, coke,

and coal vary from year to year; the amount paid in taxes apportioned over the output varies per thousand feet with the growth of the business. The amount of gas sold, of course, varies from year to year.

"Regarding my position before the committee, I wish to state that I have never been connected with a gas company. My relation to the subject has been more directly that of a statistician, I should say; a student of it for the last fifteen years. In that connection I have had opportunities to learn a great deal about the cost of gas by examining the reports of companies that have appeared at various times in litigation; from full access to the data that has been gathered, during twenty years, in the vaults of the Massachusetts Gas Commission, which has not been printed fully, but which I have had access to myself, and data which I have secured abroad. I have visited a great many gas works here and in Europe. Having been in several gas cases I have the kind of information which is more of a statistical character than anything else.

"I should like to secure facts regarding as many subdivisions as possible of the cost of manufacture. If we can not get all of them, I would like to get a few facts—for example, the price of gas oil per gallon and the number of gallons used per thousand feet, the candle power of the gas, the price paid; whether they are using anthracite coal or coke in their generators, and the price of whichever they may be using per ton; then the total amount of gas made during the year, the total leakage and unaccounted for gas, the total gas sold to the city, and the total amount sold to private consumers; the receipts and the amounts charged for each.

"The distribution costs, again, form an item by themselves, and by distribution I mean everything not included in the cost of manufacture. I would include in the cost of manufacture the operative expenses at the works and at the holders, including the care of the holders, governors, and pumps and exhausters at the holders, maintenance and repair of the same, and such portion of the expenses of the engineers and superintendents as is devoted to the manufacturing part of the plant, but I would not include insurance or taxes. I would put in distribution all insurance and taxes, office expenses, care and maintenance of the mains and meters, services, the reading of the meters; legal expenses, advertising, expenses not connected with the works, would come in distribution.

"The statement submitted to the committee appears offhand to give a fair division. I could not tell without a little more time whether it is complete or not, but I would say that to make sure of its being complete there might well be added an item under 'manufacturing' and another under 'distribution' to be called 'all other expenses,' itemizing as far as possible.

"Regarding the figure of 21.71 given as cost of distribution, I would say that the best-managed companies are not put to as large expense as that. There are many companies that do make returns as large as that, but large companies are able to get their distribution expenses lower than that unless the taxes are very high. I will give you now, if you would like, one or two bits of information on distribution. I have two plants I will refer to.

"The first I will mention is Toronto. That company sold last year, the year closing October 1, 1905, about 1,258,000,000 feet, which is

only one-tenth as much as is sold here in Chicago. The expense of distribution, therefore, should be larger naturally there, except as wages may be a little lower. The distribution expenses, aside from repairs and taxes, were 9.13 cents per thousand feet, and taxes 3.15, or a total of 12.28 cents. But that did not include an allowance for repairs, renewals, and maintenance. From their last report they had 39,711 meters, and they do not have but one meter there to a consumer. They ask the same price for both lighting and fuel—80 cents. Toronto has about 132 consumers, approximately, per mile.

"They did not separate in their report the amount that they spent on repairs and renewals of the manufacturing portion of the plant. They spent in all, however—and that covered depreciation, covered everything—13.58 cents. That can not be compared with Chicago for two reasons, the 13.58, which is for both manufacturing and distribution. One is that their plant is chiefly coal gas, which calls for much larger renewals and repairs than a water-gas plant—this is water gas in Chicago, I am told. The second reason is that the company in Toronto is tied up by a very peculiar charter, which provides that it never can pay but a certain amount of dividend. That dividend is 10 per cent on the original capital, and all future capital must be sold at auction and must be invested in plant, so that as a matter of fact the entire capital of the company is only \$1.79 per thousand feet of gas. They pay 10 per cent dividend, and as they can not divide any more, their capital being limited, they do not know what to do with their earnings, except to further reduce the price of gas or to put it into renewals and improvement of the plant, and it is well understood—in fact I have had it practically admitted by men pretty close to the company, although not in it—that the plant is being improved every year, so that it is better and better, out of this renewal fund. Taking all this into account, undoubtedly 10 cents would be nearer a fair allowance for repairs and renewals and for improving the plant, if they had a water-gas plant, as compared with their 13½ cents. Their 13½ cents would be too high if they had a water-gas plant and is really too high for their present needs. Their dividend being limited, they put the surplus into the renewal fund and allow a greater rate of depreciation than the plant would call for. They keep reducing the price, and they expect to reduce it again pretty soon, probably getting it down to 75 cents a thousand. Thirteen and fifty-eight hundredths cents in Toronto was for both manufacturing and distributing. Probably not over half of it was distribution, and that half would be about 6.79 cents, but for the reasons I have spoken of I do not think it would be much over 5 cents here. I would add that to the 12.28, making it 17.28, including their taxes. Really distribution ought not to be quite half in a case like Toronto, where it is a coal-gas plant. Probably a larger amount than half went into the manufacturing portion of the plant, because it was coal gas chiefly, causing a larger expense in renewal every year. Of the 13.58 I doubt if over 6 cents went into the repair and renewal of the distributing system, and the remainder probably of the 13.58 went into the manufacturing portion of the plant. I think 6 cents is fully as much as they probably put in, judging from their books. The repair and renewal of the distributing system in a coal-gas plant is always less than that of manufacturing. You see they have to renew benches every three years in coal gas and meet a

large number of expenses which do not occur in water-gas manufacture. They do not put repairs under either manufacture or distribution, but they have a separate item of repairs, renewals, and maintenance for the whole plant, manufacturing and distribution, 13.58 cents. Their total cost, after adding the manufacturing portion, was 60.93 cents. They pay more, I think, for coal than probably it would cost us in the States. All these figures are cost per thousand feet. I simply compute in that form from their report, which gives it in totals, and I divide it by their sales. I go directly to their report for taxes—\$39,571.78.

"I do not know the exact difference in the price paid for labor in Toronto and Chicago. Your taxes here are about \$600,000; the receipts from sales here were a little over twelve millions, I think, last year, according to a report of the Commercial and Financial Chronicle for October, and that would mean about $5\frac{1}{2}$ cents, or 5.4 cents per thousand feet, while there in Toronto, as I have indicated, the taxes are 3.15. There would be a difference of about $2\frac{1}{2}$ cents greater taxes here than in Toronto.

"I can give one other case, and I think it would bear out very strongly my contention that the Toronto figures for repairs are no criterion for Chicago, but would be very high. I have here the return made by a company to the United States Commissioner of Labor, and published in the reports of the Department of Labor, Annual Report 14, for 1899, pages 386-7. Twelve plants owned by one company made a return to Mr. Wright, and he publishes their return without giving the names of the companies, because he was pledged to secrecy in gathering all the other data as to the names of the companies. But incidentally I learned the exact population of each of those 12 cities, and running down through the census returns of 1900 I found only one particular group of 12 cities corresponding with that, so I am able to say what companies were at that time thus grouped.

"It was really the Henderson-MacMillan syndicate, consisting of Long Branch, N. J.; Lockport and Buffalo, N. Y.; Columbus, Ohio; Jackson and Grand Rapids, Mich.; Milwaukee and Madison, Wis.; St. Paul, Minn.; St. Louis and St. Joseph, Mo.; and Nebraska City, Nebr. Those 12 companies made in the aggregate 3,176,000,000 feet, but the average per company was only 264,720,000 feet. The percentage unaccounted for was 4.9, so that the average sale per company was only 251,520,000 feet. The total cost, structural value, of that property was \$10,000,000, as given to Carroll D. Wright, or \$3.31 per thousand feet of annual sale, which is far less than the companies were capitalized for; but I am speaking now of values given to the Government by all of the companies of the syndicate as their structural value, and it has some bearing here. It ought to be somewhat less when confined to one city, instead of consisting of so many small plants.

"What we are now speaking of particularly, the cost of manufacturing gas at the works, is not a matter that one can compare with another city very well without knowing the details of the cost of oil, coal, and value of residuals, and it is hardly important, perhaps, to give it, in this case 25.39 cents; but when it comes to distribution cost it is more important in comparison. There the total cost, aside from taxes, was 10.13 cents per thousand feet of annual sales. The

repairs were only 1.44 cents. The repairs and renewals at the works were 2.46 cents, but the renewals at the works, of course, did not enter into the distribution cost, but there was set aside 5 cents for depreciation, which was to be naturally divided between the manufacture and the distribution of the gas, and if we assume that 2 cents of it went into distribution, that we add to the 1.44 cents, making 3.44 cents for what would amount to taking care of the maintenance and repairs of the distribution system, while the operating expenses, aside from taxes, were 10.13 cents, or a total of 13.57 cents. To that should be added taxes. If we take Chicago taxes—which are not over 5.4 cents, apparently, I should judge a little less than that—we would have 18.97 cents. The 10.13 cents included the repairs of the distribution system of 1.44, so that it is necessary to add in that particular comparison, not 3.44 as I just did, but about 2 cents, making 12.13 plus taxes of, say, 5.40, making 17.53, which should take the place of 18.97 cents per thousand feet.

“Now, as to the relative cost of distribution in a small and a large city, I would say that they ought not to be any larger in a large city, but somewhat less, because the mains are laid larger in the first place. There is more gas per mile usually passing through the pipes in a year, consequently the repairs will be divided over a larger number of feet of gas. The repairs, therefore, per thousand ought to be somewhat less. A large city has a considerable number of very large consumers, too, which means that through a meter more gas is apt to pass than through the meters of a smaller company per meter, so that the repairs on meters again would be divided over a larger amount of gas.

“In regard to whether in the city of Toronto the company puts in the services and new connections or whether the people pay for them, I understand the company has to put them in, at least as far as the lot line. I do not know what they do between the lot line and the building. That could not be a serious item. The capital account would not be materially increased in the plant as a whole. It would be increased, of course, but I mean that the per cent would not be increased very much by extending the services a few feet farther.

“As to whether in the more modern plants the citizen or the householder pays for the connection—that is, the taking of the stove from the gas office, taking it out in a wagon, setting the stove, connecting it up and adjusting it, which probably costs \$7 a stove—I do not know that I have ever looked the matter up. The custom varies in different cities very much. It was not given as to those twelve plants, and I don't think I have ever asked in Toronto.

“New York is one of the big cities that requires a deposit for meters from a great many people, but where they do make a deposit they pay interest on it. In New York they pay 6 per cent interest on those deposits.

“I do not know whether the company or the citizen pays for the service pipe from the lot line to the house or from the center of the street or from the main in the street to the lot line in Toronto.

“If there were no special difficulties in the denser district, owing, we will say, to possible complications from electrolysis or something of that kind or the character of the soil, other things being equal, the denser the district the cheaper the cost of distribution. Ordinarily, the difference would not amount to as much as the difference in the

total cost between the Ogden and the People's companies, or almost 4 cents, but there may be other causes affecting it.

"The total cost of distribution of those twelve cities I have named was 43.22 cents, which included taxes of 2.7 cents. If the taxes were 5.5 cents, or 5.4 cents, you would have to add another 2.7, making about 45.92, or about 46 cents; approximately 46 cents on the basis of Chicago taxes. Small companies, twelve companies like those selling only an average of 250,000,000 feet, usually have a less consumption per mile of mains than large cities. Therefore, in all probability, the miles of mains are greater in proportion to the output than they would be in any large city. If a city is growing rapidly, it has difficulty in keeping up pressures and requires larger mains. A city of 50,000 is more apt to have a higher percentage of growth. Take the census figures, and I think that you will find the percentage of growth falls off after a city gets to 1,000,000 population. In cities like Toledo, Pittsburg, Cleveland, Duluth, and that class of cities, the percentage of growth is much higher than in cities like New York, Philadelphia, Boston, or Chicago. Per mile of main of the same size, a 6-inch main or a 12-inch main, the cost of repairs and renewals would not be any greater, but when you have to make repairs it would cost more to make them per mile in a big city, because of the congestion of traffic and the more expensive paving which you would have to take up. I would not say that there would be any great difference in the cost of labor, on the whole, in those twelve cities, compared with labor in Chicago."

STATEMENT OF MR. E. G. COWDERY, OF ST. LOUIS, MO.

Given before the committee on gas, oil, and electric light, Thursday, December 28, 1905, relative to a reasonable price for the manufacture and distribution of gas.

"I have been connected with the business for thirty years. My commencement was with the Toledo Gas Light and Coke Company of Toledo, Ohio, and I entered their service at the time as an engineer and draftsman. I designed the improvements and details for the construction of their works. While I was not with them during the construction of the entire works I furnished the design. I left there and followed the superintendent of the Toledo company to Milwaukee, where I took a position with him as an assistant superintendent in the spring of 1877.

"I remained there until the fall of 1882. Then I left and came with the People's Gas Company of Chicago. I stayed with them about two years. That was during the construction of the Division street works. I left there and went back to Milwaukee, taking the superintendency of that plant in 1884 and so continued until 1893, when the entire property changed hands, and I was made general manager of the company. I continued in this capacity, afterwards being elected to other positions—vice-president, etc.—and practically controlled the operation of the Milwaukee Gas Company up to the spring of 1903, two and a half years ago, when I went to St. Louis to take charge of the Laclede Gas and Light Company's property, where I am now located. In the meantime, I have been interested with others in the purchase of gas properties and their improvement, building up

their business, etc., including the plants at Racine, Kenosha, Fond du Lac, and other Wisconsin cities.

"During this thirty years it has been my duty as well to cover the country thoroughly, to know what other gas companies were doing, to become acquainted with the men operating those companies; and during that time I believe I have become pretty well acquainted with practically all of the men operating gas properties in the United States, and I am familiar, more or less, with the conditions that govern the different properties throughout the country.

"I have been connected with the gas associations of the country for over twenty years. In 1892 I served as the president of the Western Gas Association, an association which is supposed to incorporate in its membership practically all of the gas men operating gas companies throughout the Middle West. I have just served, during the last year, as president of the American Gas Association, which is the National Association of America, and supposed to embrace all of the gas men of the United States. I was for one year president of the State Association of Wisconsin.

"Regarding the figures presented representing the cost to the People's Company of the manufacture and distribution of gas, I will say that they seem to me to be lower than I have ever known the cost to this company to be. They impress me, as I look at them, as entirely reasonable, and I do not believe that the figures are swelled in the slightest degree.

"There are no two places, probably, in the United States where the conditions are the same. You are aware that the People's Gas Company is manufacturing water gas, and I do not believe that it is practically possible for anybody to manufacture water gas in Chicago and distribute it materially lower than these figures. The candle-power furnished in Chicago, I understand, is 24. The selling price of gas in St. Louis is \$1 for illuminating gas, and for fuel gas we charge 80 cents. We furnish the same grade of gas for illumination that is furnished for fuel.

"There is a reason why fuel gas has been furnished for a lower price than illuminating gas. For illuminating gas, the output is made within about four hours out of the twenty-four, say, from 6 o'clock till 10 o'clock in the evening, and practically with no output during the other hours. The gas companies have realized that they had a distribution system that was being put to no use for twenty-four hours out of the day, and that if they could get some means to stimulate the use of gas during those hours, it would be a source of greater profit to them, and that the cost to them would not be as much for that gas as it was for the gas distributed during the four hours. For instance, if the cost of distribution were 20 cents, one could practically figure that the extra gas sold during the other twenty hours could be sold without cost of distribution and still receive the same amount of profit as would be received on the illuminating gas. It is under this theory that some companies felt that it was proper to fix a different price, a lower price, for fuel gas, in order to stimulate its use.

"There is probably to-day not the same necessity for making a difference in price, because progressive gas companies have been promoting their business to the best of their ability, and are selling as much gas for fuel now as they are selling for light; and while the

hour at 6 o'clock in the evening, when the fuel load and the lighting load cross each other, is still the heaviest hour, yet the gas is much more evenly distributed throughout the twenty-four hours than it was formerly.

"In St. Louis we have been making a record chart of the output once a week this winter, and this record shows an output at 6 o'clock in the evening of a million and a half feet an hour, while the lowest output is between midnight and 5 o'clock in the morning, and the rate is about 400,000 feet per hour.

"In St. Louis for the year 1904, the percentage of total output used for fuel purposes was 50 per cent. I do not know exactly what the record is for other cities, but I assume that companies that have been well conducted will show about the same average—50 per cent of the whole output.

"There is no uniform system of accounting among the gas companies in this country. The gas associations have endeavored to get the gas companies to adopt some uniform system in order that gas companies might make comparisons among themselves for their own benefit. It has been found impossible, however, to get companies to adopt a uniform system.

"The figure of 53.53 cents, as presented by the People's Company, representing the cost of manufacture and distribution, seems to me a reasonable one. If I had been asked to give a figure offhand, I would have said 30 cents for manufacture and 20 cents for distribution.

"I feel like cautioning this committee strongly against paying too much attention to small details, such as fractions in the cost, because the cost to the People's Company, I do not doubt, will vary as much as 5 cents a thousand from one year to another. With two large companies in cities in this vicinity, within the last three years, I have known the cost of production to increase 15 cents a thousand within two years; therefore, in trying to fix a price for gas, you must not take too narrow a view of it, and therefore take the lowest possible cost in any one year as a basis. You must take into consideration the fluctuations in the cost of oil, fuel, and labor, and make due allowance for such changes. The question of taxes enters very largely into the figures constituting the cost of gas. For illustration, I will state that in St. Louis, in the year 1901, our taxes were \$50,000, and this year they are \$250,000.

"There are other things that must be taken into consideration, one of these being the condition of the company's property; also the question of management. A new manager may take hold of a property and reduce the cost of production very materially within a month. He may continue this for a year or two, or more, in order to make a showing. It is perfectly easy, however, to see that after he continues through a series of years, the time will come when the cost will have to be enough higher to make up for the reduction. He has thus allowed the property to deteriorate.

"I should judge that the year 1904 might be regarded as an average year. This is the year, I understand, for which the People's Company gave its figures.

"Coal gas usually runs from 16 to 17 candlepower, and during the last few years of competition with water gas, it has, in many cases, been increased in its illuminating power. This is done by either mixing it with water gas, or adding oil, or some other substance

to increase its illuminating power. Ordinarily it is not practical to send out a coal gas above 20 candlepower. Above such candlepower it is apt to smoke and become disagreeable.

"Whether water gas is cheaper than coal gas in manufacturing, is a question of location and conditions, entirely. Chicago began to make water gas a good many years ago on account of the expensive labor troubles. Coal-gas works require a large amount of labor, while water-gas works require comparatively little labor. If the Chicago companies had coal-gas plants already established, they could probably manufacture coal gas a little cheaper to-day than they are manufacturing water gas. However, to manufacture coal gas it would be necessary to construct new plants and to put in a large amount of capital. It takes a great deal more capital to build a coal-gas plant than is required for a water-gas plant; probably a coal-gas plant would require 150 per cent more investment than is required for a water-gas plant. The price of manufacture could not be cheapened sufficiently to warrant the expenditure of such a large amount of capital.

"Your ordinance, I understand, requires a 24-candlepower gas. This could not be furnished in a coal gas, but coal gas could be manufactured which would probably have as high a heating efficiency as the present water gas. Usually about 30 pounds of coke and from 4 to 5 gallons of oil are required for a thousand feet of gas. This will vary, according to the illuminating power of the gas desired. Either coke or anthracite coal is used, depending upon the cost.

"The People's Company may often find it more difficult to get coal than to get coke, and this fact may influence the company in using coke in the place of coal. There is not much difference between the amount of coal or coke necessary. Theoretically it is the same. The amount of either depends absolutely upon the pure carbon that it contains. Anthracite coal usually contains from 85 to 90 per cent of carbon, while the best quality of coke usually runs from 80 to 90 per cent carbon.

"I presume that the cost of coke in Chicago runs from \$5 to \$6 per ton. I do not know what is paid for oil in Chicago, but in St. Louis we are paying 3½ cents a gallon, and I do not doubt that the People's Company in Chicago are paying between 3 and 4 cents a gallon for oil.

"We do not use the same kind of coal to make gas that is used to make steam. In making gas we use bituminous coal, and we must have, necessarily, a coking coal—that is, coal that will formulate itself into coke after the gas is driven off—and usually it is the richest quality of bituminous coal. For making steam we generally try to get the cheapest article that we can get, and gas coal is the highest priced article on the market. There is no coal in Indiana or Illinois fit for coal-gas purposes. It pays better to pay the extra price for Pittsburg coal.

"Some sulphur is extracted from gas through the purification process. This is considered worthless and is disposed of in any way possible. There was a time when gas companies around this locality were offered a dollar a ton for this product loaded into cars ready for shipment. This hardly pays the cartage. It is probably cheaper to throw it in the dump than to put it on the cars at that price.

The present process of purification costs about 1 cent for a thousand feet of gas.

"The only by-product of value resulting from the manufacture of water gas is tar. There is a tar residuum usually of about a half a gallon for every thousand feet of gas. This is not worth much. The companies throughout the country to-day have great difficulty in selling it at all. If a market can be found for it, the highest price that can probably be obtained to-day is about 2½ cents a gallon. A company which does not have a contract to dispose of its tar usually burns it as fuel. As fuel it is worth about three-fourths of a cent a gallon.

"I believe that the People's Gas Company has a water-gas plant the equal of any water-gas plant in the country, and I know of no reason why this company is not operating, all conditions considered, as cheaply as any other water-gas plant is operated in the country. I believe that the operating management of the People's Company is a very careful one and one that pays great attention to details.

"It is difficult to state just what is a fair percentage per thousand cubic feet for repairs and maintenance. Repairs to a water-gas plant will cost less than repairs to a coal gas-plant.

"I do not understand that the figures presented by the People's Company contain any depreciation at all. I assume that the People's Company does not figure in any sum for depreciation, but rather that it takes these net figures and depends upon making a surplus above dividends which it can lay aside and which answers the same purpose as a reserve fund.

"I do not know what the People's Company is paying for labor, I will say, however, that the price of labor varies greatly in different cities. I know of places where a gas house laboring man works twelve hours a day for \$40 a month, and I know of other places where such a workman is paid \$3 a day, or about \$100 a month.

"It is difficult to compare the cost of producing water gas with that of coal gas. Both are subject to local conditions and the cost of material. In the manufacture of coal gas you must take into consideration what is received for residuals. With the manufacture of water gas there is not much to dispose of as by-products. Hardly any company can afford to manufacture coal gas unless it can dispose of its residuals, and therefore the price obtained for such residuals has great effect upon the cost. One company may pay a much higher price for coal than another and yet be able to manufacture gas cheaper than the other company on account of its ability to get a better price for its residuals. Such residuals are coke, tar, ammonia, etc. The only residual from water gas is tar. There is a slight amount of ammonia in water gas, but no attention is paid to it and no effort is made to extract it. Tar is the only residual of water gas of any value.

"The average candlepower of coal gas is from 16 to 18, and the average candlepower of water gas from 22 to 24, but the illuminating power of one does not correspond to the illuminating power of the other. A coal-gas flame through a burner of a certain size may give a large, broad flame, and a water gas of even a higher candlepower would not give as large a flame with the same burner. It would be more condensed, compact, and a thicker flame; and while

the candlepower is undoubtedly there—for the measurement will prove it is there—as a 24 against an 18, yet the coal gas is of a lighter gravity and spreads out into a larger flame. Between an 18-candlepower coal gas and a 24-candlepower water gas there is a difference of 6-candlepower by actual measurement. The 24-candlepower water gas would give such additional illumination over the 18-candlepower coal gas.

“The coal-gas process is necessarily a continuous process. With a coal-gas furnace, every time you let the temperature go down you shorten its life. The water-gas process is more of a temporary one. A coal-gas works needs a larger holder capacity for storage than a water-gas works, because with a coal-gas works it is necessary to have a stock to draw from, while with a water-gas works an apparatus of larger capacity can be put into use promptly.

“Illuminating gas and fuel gas are usually of the same candlepower. It has been the custom in former years in some cities to maintain a separate system of pipes for fuel gas, but after years of experience it was clearly demonstrated that it did not pay a company to carry two different qualities of gas through its pipes. All of the gas can be carried through one set of mains and at a lower average cost than would be possible if separate mains were maintained for each. To furnish gas of a different candlepower for fuel would require the maintaining of another distribution plant. Formerly an open, flat-flame gas-burner was in general use. To-day mantle burners are coming into extensive use. The fuel or heating gas is the gas required for the mantle burner, and the time is no doubt not far distant when no one will be required to furnish a 24-candlepower gas. When all the lighting is furnished through mantle burners, there can be no object in furnishing high candlepower gas.

“It is possible to make gas of high candlepower that is somewhat low in heating power, and equally possible to make gas somewhat low in illuminating power that is high in heating power. High heating power is obtained in practice by the heat under which the gas is manufactured. It is entirely in the company's interest to make its gas of high heating quality, because that is the way in which it can give its customers the greatest satisfaction and the best service. With our company, we test the heating power of the gas just as regularly as we test the illuminating power. A 24-candlepower water gas is higher in heating units than a 20-candlepower gas, and the more illuminant you add the more heating value you obtain.

“I left Milwaukee in the spring of 1903, after being there for twenty-six years. While I was in Milwaukee, the price was reduced from \$2.75 a thousand to \$1 a thousand for lighting, and 80 cents for fuel. I was known in Wisconsin as the champion of reduction in the price of gas. The price in Milwaukee for illuminating purposes has been reduced within the last year. The price is now \$1 for the first 1,000 feet in any month, and for all additional illuminating gas used during the month the price is 90 cents. Fuel gas is furnished at 80 cents per thousand. A reduction is made to large users. The first 10,000 feet of gas used in any month is sold at 80 cents. The next 10,000 feet is sold at 70 cents, and all additional gas through the same meter during the same month is sold at 60 cents. These reductions have been entirely voluntary on the part of the company. Such reductions

have been made to cultivate the larger use of gas for fuel purposes, to encourage manufacturers and others who desire to use large amounts of gas monthly. The result of such reduction has been to increase the sales of gas and to increase the profits. This has been the result in a large number of cities where reductions have been made.

"The company in Milwaukee enjoys an unusual privilege. It has an exclusive and perpetual franchise granted by the State in 1850. This franchise has been confirmed by the Supreme Court. The Milwaukee Company appreciates the value of the right given to it, and it has been its aim to make every effort to do what was right in the interest of the people.

"Regarding the cost of manufacture and distribution of gas in Milwaukee during the last four or five years, I will say there has been a great variation. In the year 1903 the figures of such cost did not vary far from the figures now presented by the People's Company. The only way that one can get at the proper cost in any particular place is by making a careful investigation in that particular place, and by taking all the conditions into consideration that exist there. The annual output in St. Louis is about 4,000,000,000 cubic feet. The capitalization of our company is about \$30,000,000.

"I believe that the candle power that is being furnished in Chicago is higher than that usually furnished in other cities. We are furnishing from 18 to 20 candle power in St. Louis. I believe that an 18 candle-power coal gas for all purposes would give the consumer as good satisfaction as a 22 or 23 candle-power water gas. I mean for all purposes—heating, lighting, and general satisfaction. In St. Louis we use 1 to 3 coal gas and 2 to 3 water gas mixed. Confining myself to the question of illuminating alone, I believe your gas gives more illumination than ours. It costs about three-fourths of a cent for an increase of 1 candle power in the manufacture of either coal or water gas.

"It is not usual to maintain a uniform candle power throughout all points of consumption. I think there would usually be a drop of about 2 candle power between the works and the extreme limits of a large city. This drop of candle power through transmission is caused by the friction of the gas passing through the mains.

"The term 'distribution' includes everything not included in the term 'manufacture.' Under 'distribution,' I would include the maintenance of street mains, maintenance of services, maintenance of meters, attendance upon consumers, attending to complaints, office expenses, clerical force, reading of meters, distribution of bills, making of collections, executive expenses, legal expenses, taxes, insurance, rents, and everything of such character. Manufacturing delivers the gas in the holder, and distribution takes it to the consumer.

"Formerly companies charged for putting in services, and probably at a price which meant a profit to the company. Now the custom varies somewhat. In some cases the company puts in the services from the mains to the curb line of the property. In order to promote its business and make it easy for the people to adopt the use of gas, it then became the rule among companies to put in the service pipes to the meter. The average cost of putting in the service is about 25 cents a running foot. I think the average length of services in Chicago is longer than it is in Eastern cities. The average company undertakes to sell appliances for the use of gas, both fuel and lighting,

without profit to the company. It is a general custom for companies, in placing gas ranges, to run the pipe from the meter to the range at its own expense, in order to induce the customer to become a user of gas. The selling of gas appliances at no profit would come in the line of promoting the business.

"It is the custom to keep a force of men to answer complaints, fix stoves, or other appliances, for the customer, free of cost. In some cities customers are charged rent for the use of meters. But this is not the custom. In some cities it is the custom to require a monthly minimum bill. This is to pay for the privilege of having gas ready for use at any moment, regardless of the fact of whether it is used or not. It is the custom of companies to thaw out frozen services free of charge.

"It is probable that the soil of Chicago is unfavorable to the long life of mains and services on account of the damp soil. Electrolysis is more or less common in all large cities. It depends upon the good or bad construction of the street railway systems. I do not think that electric light wires cause a great deal of damage, for they are usually well installed and well protected. The poorer the installation of the street railway system, the greater the damage by electrolysis.

"In a very few cities gas companies maintain branches where customers may get quick attention to their complaints. In St. Louis we have over 100 different offices where customers may pay bills without additional expense.

"The cost of promotion of the business ought to be taken into consideration in fixing the price of gas. In St. Louis we are setting aside and spending 3 per cent for the promotion of the business.

"In many cities companies are required to lay their service pipes to the curb lines previous to the laying of the new pavement. It is very questionable whether this is good policy or not, for the reason that service pipes so put in and not used often rust out; and besides a building of such a character may be put up so as to make the service inadequate. It is then necessary to put in a new one. In St. Louis, previous to the laying of a new pavement, we canvass the territory to discover whether it is the intention of the owner to put up a building within two years. If so, we put in the service practically free—that is, making a charge of \$5 with the understanding that such amount will be refunded if the owner begins the use of gas within a period of five years. But if such is not his intention, and a building is constructed within two years, we charge \$20 for the service—for taking up the pavement and replacing it.

"The average life of a gas main is fifty years; of a service pipe, twelve years, and of a meter, fifteen years. It is the general rule of gas companies, so far as I am acquainted with it, that every meter should be taken out of its place and taken to the repair shop to be put in proper repair and to be tested, once in every three years.

"I would estimate the average rate of leakage to be 6 per cent; and I think this a fair estimate for Chicago.

"Increasing the output usually cheapens the cost of production. Among gas men it is usually assumed that in the case of manufacture the cost would usually decrease in the works until it reached a million cubic feet daily capacity. The second million would not cost much less than the first. I doubt if one could distinguish between the cost of operating a plant of 20,000,000 capacity and the operation of four

plants of 5,000,000 capacity each. I think the cost per thousand would remain practically the same, whether you manufactured 20,000,000 or 40,000,000 feet. This would be true in the case of either a coal or a water gas plant.

"Increasing the number of consumers to each mile of main does not materially cheapen the cost of gas. This is especially true after reaching a certain point. The difference in cost would not be sufficient to warrant a reduction in price.

"With a new plant put in properly the leakage ought to be the minimum for the first few years of its existence. I imagine that any plant that has been in use eight years has gone beyond the stage of a new company, and I think that any old plant that has been properly taken care of would make as good a showing as the plant 8 years old.

"I believe that a 5,000,000 unit is large enough for any plant; and if I required an output of 40,000,000 capacity I would have eight plants of 5 units each, even if all were situated on one premises.

"Every well-conducted gas company will take care of its works and will take care of its property, such as street mains, services, meters, etc., and that expense will naturally be met every year. In addition to such expenses, in the course of years, the gas companies will find extraordinary expenditures which can not be taken care of in the usual way. For illustration: If they find the yearly expenditures upon mains and services to be 3 cents a thousand, and they do not lay by any additional sum to take care of any extraordinary events, the chances are that the time will come within a few years when they will have to make an extraordinary expenditure amounting to a considerable sum and they will not have the money to do it with. Therefore, it is in the line of good policy for the company to lay by a certain sum to take care of such unforeseen expenses. This point I can illustrate:

"While I was in Milwaukee I saw two entire plants built and destroyed as the result of improvements in the business. Thus, if we give to gas works the life of twenty-five years, it is giving a longer period than conditions usually warrant. Besides keeping up the repairs it may be necessary to replace the entire plant in twenty-five years, and if so, it is perfectly plain that one-twenty-fifth of the cost ought to be charged to some account in order that the replacement may take place at the end of such time. The repairs are made from year to year to keep the plant in proper condition; but it is also necessary to provide for a replacement of the plant. It may not be worn-out, but it may become out of date.

"Repairs and renewals that take place frequently should be charged to repair account as they come along, but those that take place at infrequent intervals should be provided for by a reserve account. It is the common practice when a main is replaced by a larger main to charge the increased cost of the larger main to construction account. It is not proper to charge the entire cost, because a small main has already been laid, and therefore it becomes necessary to separate in some manner and thus charge a portion of it to repairs.

"When the time comes through the growth of a city that it is necessary to replace a large number of miles of mains, the ordinary repair account will not stand the expense. This should be drawn from the reserve account, and thus the company is able to carry out such work when necessary. If in the course of years a large fund of

this kind is built up and there is no necessity for its use, it becomes possible for the company to reduce the price of gas because of its sufficient reserve fund. Such reserve fund is designed for taking care of extraordinary and unexpected conditions.

"I should say that a fund of 5 cents a thousand should be provided for the reproduction of the works and another sum of 5 cents a thousand for the maintenance of the entire distribution system. And I believe that any company where possible should set aside a fund, to be used in emergencies, of 10 cents a thousand, and any company so doing is following along in safe lines. I don't believe it is necessary for me to lay down a rule as to whether such reserve fund should be invested in bonds or held in the treasury. A company is in a strong position if such money is invested in bonds, making it possible to convert it into cash any time when there is occasion for its use—when anything extraordinary happens. I think it is the custom for well-managed corporations to so invest such funds.

"Extraordinary repairs—large amounts which the company can not afford to make from its yearly receipts—should be made from such reserve fund. It would be a hardship to meet such extraordinary expenses out of current earnings."

STATEMENT OF PROF. EDWARD W. BEMIS, OF CLEVELAND, OHIO.

Given before the committee on gas, oil, and electric light, on Friday, December 29, 1905, relative to a reasonable price for the manufacture and distribution of gas.

"I visited yesterday the Universal gas plant and also four plants of the People's Gas Light and Coke Company. I think in estimating the price of gas, oil is always the most expensive item next to coal or coke. A slight change in these items makes quite a change in the cost. As the companies decline to give the exact figures for any item, I base my estimate upon the total cost as given by the two companies, namely, 53.53 cents for the People's, and 49.78 cents for the Ogden. I find it very remarkable that the two companies' figures should vary so materially.

"In order to arrive at the proper cost, I take the cost of the Ogden Company in the holder—26.86 cents—as against 31.82 cents of the People's. I deduct 2 cents from the 26.86, this being a mere book-keeping charge as a set-off against possible depreciation, and arrive at the figure of 24.86 cents in the holder. I add thereto 1½ cents for the People's Company because they furnish a 24-candlepower gas as against 22-candlepower furnished by the Ogden, thus making the total cost in the holder 26.36 cents. The difference of 5.46 cents still remaining I believe to be caused by the fact that the People's Company includes in its price not only the cost of the gas it makes, but also what it pays for the gas made by the Universal and Northwestern companies—a favorite method of gas companies generally.

"To the cost of 26.36 cents in the holder I add the distribution cost as stated by the People's Company of 21.71 cents, making the total cost of the gas at the burner 48.07 cents per thousand feet of sales. For taking care of ultimate depreciation I accept the standard established by Alexander C. Humphreys, the best authority I know of in the gas world. Mr. Humphreys's testimony in the Holyoke gas case was in substance, speaking of a coal-gas plant, that in ordinary cases

a sufficient amount for repairs and renewals was 4 cents at the works and $2\frac{1}{2}$ cents distribution, or $6\frac{1}{2}$ cents. The Holyoke plant, in addition to this, was spending at the works $2\frac{1}{2}$ cents and upon the distribution system 2.66 cents, or a total of 11.66 cents, which I think sufficient for depreciation and the final renewal. I think from Mr. Humphreys's statement and from a statement made by Mr. Cowdery, of St. Louis, before the committee, that $2\frac{1}{2}$ cents is a fair repair account for the works of a water plant, or $1\frac{1}{2}$ cents less than Mr. Humphreys required for the Holyoke plant, or any plant of that nature making coal g.s. It would appear that 10 cents is sufficient for a water-g.s. plant. I therefore allow for repairs and ultimate depreciation 10.16 cents, and having discovered that the People's Company is setting aside for this purpose 6.27 cents only, I add the 3.89 cents to the 48.07 cents, making a total cost of 51.96 cents at the burner.

"Upon further figures quoted from Mr. Humphreys's testimony, I would place the average life of a gas plant at thirty-three years. A sinking fund of 1.51 per cent a year at 4 per cent interest will cancel their principal in thirty-three years. These percentages would only have to be applied to the part of the plant aside from the land, and 5 cents per thousand feet, if put into a sinking fund, would renew all parts of the plant aside from the land in thirty-three years. This figure would include any change of construction which may be entered into by reason of the improved process rendering existing plants obsolete in a shorter time than that. The 51.96 cents, which I am willing to call 52 cents, that I have arrived at, does not include as much for a sinking fund as I have just been speaking of, but includes a sum total of about 10 cents. I do not think it is absolutely necessary to provide for a sinking fund as long as a sufficient amount is put somewhere. It may go into repairs and renewals and replacements directly, or be written off for stuff that is abandoned; and if the 10 cents is put somewhere in repairs or renewals or a sinking fund, according to Mr. Humphreys, everything is done that is necessary, always considering that the $1\frac{1}{2}$ cents which Mr. Humphreys accords to coal-gas plants has been deducted.

"The reason I take the manufacturing cost of the Ogden Company and the distribution cost of the People's Company is chiefly that the People's Company, being very much larger, has opportunities for cheap production a little ahead of the Ogden. I do not think the density of consumers would cheapen distribution, because the other company, selling eleven times as much as the one, is able to distribute salary accounts, legal accounts, and many office expenses over a larger amount of gas, so that what the Ogden Company may save on account of the greater density of its consumers, it would spend again for the proportionately greater amount for office expenses.

"In comparing the largest 6 gas companies in Massachusetts with the other 53 companies in that State, as to distribution expenses aside from taxes, I find that the largest 6 companies—namely, Boston, Lowell, Cambridge, Worcester, Fall River, and Lynn—have distribution expenses of only 77 per cent as much as the remaining 53 companies, for 1,000 feet of gas sold, tending to confirm the statement that the largest companies do not have as large expenses per 1,000 feet distribution as the small companies.

"The Consolidated Company of New York charges 1.35 cents for repairs to gas stoves and meters, and 2.63 cents for mains, services, and everything else in the distribution system, and further 1.31 cents for replacements, or a total of 5.29 cents for repairs, renewals, and replacements of the distribution system. The New York company never had a contingent fund, or a fund to set off against the possibility of depreciation on a big scale on some certain occasion until a year ago, when the legislature began to look into the price of gas, when the company, like the Boston company, suddenly adopted the theory that they must have such a fund.

"With respect to the consumption per mile of mains, I figure Chicago upon a basis of 2,000 miles of mains and 11,000,000 thousand feet of sales to have 5,500,000 thousand feet of sales per mile of mains. In Boston there is only 4,000,000; in Lowell, 3,375,000; in Lynn, 3,493,000. The number of consumers to the mile of mains is 180 here; 131.9 in Lynn; 118.5 in Lowell, and 102 in Boston. All three of these companies, however, have lately reduced to 90 cents, and their testimony showed that the cost of gas in the holder, at least in Boston, was about 40 cents.

"In regard to the capital account, or the allowance for the return on investment above the 52 cents of operating cost, the question is vital as to whether to take for the basis par value of the securities, or to take the cost of duplication and structural value—that is, the original cost of the plant, less a proper allowance for its present condition. The Massachusetts gas commission has held that whatever might be a proper price in a case of sale, when it comes to fixing the price of gas they have been trying to work toward the theory of structural value, and allowing for a return on the structural value, on the theory that in a competitive business the company can not sell its property for much more than the cost of duplication.

"I think the Massachusetts theory, although they have not fully succeeded in working it, has a great deal of merit as regards the price question, which, however, is not as strong as when it comes to the question of condemnation proceedings for purchase. But where a company has not paid anything for its franchise, I can not understand why the gas consumers should pay the return on that, but they should pay for the structural value of the plant, enough to keep it up and keep it in good condition, so that the capital will not be impaired. Taking that for granted, the question arises, What would be a fair structural value of the property here? I can not answer absolutely without an inventory. That would take quite a time and very skilled men to prepare it.

"I think that \$3.20 per thousand feet of annual sales would probably cover the structural value of the plant. I base this estimate upon the inventoried assets of Toronto at \$3.36 per thousand feet of sales, and upon the experience of a group of 12 companies which returned to the United States Government a report stating their structural value to be \$3.31 per thousand feet of gas sold. I, therefore, reason that a figure like \$3.20 is a fair probable approximation, but would not wish to say that it is absolutely correct, as that could not be determined without an inventory.

"In arriving at this figure I leave out of consideration the fact that other plants were bought from other companies that had obtained franchises from the city for which the People's Company had to pay

large prices. I doubt whether the plant could be reproduced now at the rate stated, on account of the paving, but I think that where the city paved the street after the main was down, therefore making it more expensive to duplicate the main, the city should not on that account pay more for gas. The present plant could not be reproduced within two years without a highly increased expenditure on account of speed. Nevertheless, I would not increase the capital amount. The capital per thousand feet sold in a number of Massachusetts cities ranges from \$2.15 in Fall River to \$11.64 in Framingham. In Chicago the capital at present is a little more than \$6.

"I do not know of any gas company that was successfully floated on a basis of 6 per cent of its structural value with the exception of Cleveland. I do not know of any company that has started in and built an entirely new plant on a basis of \$3.20 per thousand output that was floated on a 6 per cent basis. The Mutual Fuel Gas Company of Hyde Park, had an original capitalization of less than \$3 per thousand, which was afterwards raised to about \$9. I consider it fair and honest to leave the outstanding securities out of consideration and figure on the basis of structural value only, because the investment in stocks issued for a greater amount than the structural value is a pure gamble, and the investor buys these securities at his peril, especially in view of the long agitation of the question in the mind of the public. Were the agitation a sudden thing it would be different, but under circumstances as they are at present the investor buys on speculation and runs his own risk.

"Taking \$3.20 as the approximate cost of structural value, the question would then arise as to the percentage on that. A 5 per cent bond will float at par, and a 7 per cent stock will float at par in the gas business. Half of the structural value in bonds at 5 per cent and stock at 7 per cent, or an average of 6 per cent, will float them. Six per cent of \$3.20 would equal 19.2 cents per thousand feet, which, added to the 52 cents, would be 71.2 cents. If 7 per cent on the \$3.20 were to be taken, which would allow bonds at 5 per cent and stocks at 9 per cent, it would give 22.4 cents, added to the 52 cents, making 74.4 cents.

"The increase in the consumption of gas on account of reduction in price is enormous, and the profits will not fall with the fall in price. Increased consumption from a reduction in price does not increase operating expenses at the same ratio as the consumption is increased, because that increased consumption is largely along the lines of existing mains and through existing meters, by the use of gas to a more liberal degree for heating and cooking purposes. The ordinary consumer would burn more gas and less coal if coal prices were higher, and would further find new uses for gas if the price of gas were lower. He would use gas for heating his house in the spring and fall of the year, and possibly would be willing to pay for more gas at a cheaper rate than he is now paying for at a higher rate, and therefore while making a smaller profit on each thousand feet of gas, the company would make larger profits on the entire consumption. Nor would that increased consumption mean any increase in capital cost.

"In fifteen of the twenty-three cases of considerable reduction in the price of gas in Massachusetts, in the last fifteen years, not only did the consumption greatly increase, but the actual profits reported to the gas commission in the year following the reduction were greater

than they were in the year before the reduction, and these reductions were from 10 cents to 25 cents each in amount. A reduction of 30 cents in gas per thousand feet would not reduce the profits the next year over 15 cents per thousand feet in any large city in this country, and within two or three years the profits would be as large as they were before the reduction.

"Three cities which reduced from \$1 to 90 cents in Massachusetts were Boston, Lowell, and Lynn. In Lowell, on June 30, 1901, the price of gas was \$1. In the year ending June 30, 1903, it was 90.9 cents on the average, a reduction, therefore, of 9.1 cents. The profits rose, however, from \$97,706 to \$126,902, or 29.9 per cent. This is larger than the usual increase, and I do not claim it is all due to reduction in price.

"In Lynn the reduction amounted to 9.3 per cent, while the profits rose 4.3 per cent. In Cambridge the reduction amounted to 12½ per cent, while the profits within two years fell only 2½ per cent. In seven out of the twenty-three cases in Massachusetts there was a reduction in the profits, but in fifteen cases the profits increased with the reduction in price. In Massachusetts the gas commission has the power to regulate the selling price of gas, and the lowest price at which gas is sold in Massachusetts is 90 cents, in the three cities named above.

"By transmitting gas at long distances it loses some of its illuminating qualities, and in order to deliver a 24-candlepower gas at the burner it would require a 26-candlepower gas in the holder. I think it is a mistake to require 24-candlepower gas. I think an 18-candlepower gas would be a much wiser light, providing it would give a corresponding reduction in price. It is just as good for heating, and the proportion of gas used in the open burner is growing less continuously all over the world. In Massachusetts they only require 16-candlepower, although 18 is commonly given, and I think perhaps 18 is low enough, although in London they have gone down to 14. A high candlepower means a needless expense to everybody. The gas furnished in Boston, Lynn, and Lowell at 90 cents is a little over 19-candlepower, or 5-candlepower less than in Chicago.

"Regarding the possibility that the cost of manufacture of gas may suddenly jump as high as 15 cents, I will say that in fixing a price for a period of five years that during that time the fluctuations are just as much one way as the other, and that as the 1904 figures formed the basis of my figures they are fairly normal. There has been a gradual increase in the net earnings of the People's Company in spite of all the fluctuations and the coal strike of two years ago, and the profits of the company have been increasing along with the growth of the city.

"The city of Cleveland is one of the large cities that charges 75 cents for its gas. In Cleveland they get their coal and oil cheaper than they do here, but there they have to compete with natural gas, and, in addition to the ordinary taxes, they have to pay a franchise tax amounting to 5 cents per thousand feet of gas. Oil and coal are cheaper there. I do not know the exact figures, but the treasurer and vice-president of the company told me they were paying 4 cents for gas oil there. Labor also is cheaper in Cleveland than here, but the labor cost in the manufacture of water gas is small, for gas in the holder is not more than 4 cents.

"I wish to call your attention to two statements appearing in the report of the Illinois Bureau of Labor Statistics for 1896, one by Mr. Burtis, until 1887 treasurer of the Chicago Gaslight and Coke Company, the largest of the companies subsequently forming the People's. The statement was made, I believe, in 1893, and in it Mr. Burtis claimed gas can be sold for 90 cents per thousand cubic feet, and out of the receipts, cost of production, and supply and expenses a dividend of about 9 per cent of the entire cost of the plant and property could be paid. By using modern processes this gas could be supplied at much less than that. The second statement was a report presented to the New York Stock Exchange by Mr. C. K. G. Billings, and printed November 25 of that year in the New York Commercial and Financial Chronicle. In that statement it appears that the cost amounted to 46½ cents per thousand feet, not including bonded interest.

"In the city of Montreal, where I have recently made a report as to the cost of gas, conditions are very different from here. There they have a very severe climate in the first place, and therefore have to bury their mains to a 6-foot depth from the top of the main to the surface. The services freeze in the winter time more than they do farther south, and they are very much bothered with water. The laying of mains and services is much more expensive on account of some rocky soil; and, further, they do not find it possible to get oil as cheap as in the States. Their coal comes from Nova Scotia and must be purified at more expense on account of the sulphur. So conditions there are certainly more expensive than here, and the consumption is only about one-eleventh of that of the People's Company. My report was made on the basis of two-thirds coal gas and one-third water gas of 18-candlepower, at a cost of 61 cents in the holder; the cost of coal gas in the holder at 35 cents and that of water gas at 40.1 cents, or the mixture at 39.1 cents; or, after deducting 12 per cent for leakage and unaccounted-for gas between the holders and burners, 41.5 cents. The cost of distribution I figure at 16.75 cents, making the cost in the burner, without depreciation, 58 cents; allowing 3 cents for depreciation, makes the total 61 cents. They pay much less for coal and labor in Montreal than they pay in Chicago. The coal used is Nova Scotia coal at \$3.80 per long ton, and from their coal they obtain residuals which would leave the cost of coal \$1.46. However, water gas can not be made nearly as cheap there. They further have considerable difficulty in getting rid of their residuals.

The capitalization of the private company in Montreal was \$6 per thousand feet of sales prior to the consolidation of that company with the electric-light company. I estimated a capitalization of \$4.30 per thousand feet for Montreal, or \$1.10 more than for Chicago, as it costs more per thousand feet to build the plant there than here. I recommended 87 cents as a reasonable price for gas in Montreal. Nevertheless, I would recommend 75-cent gas for Chicago, because I know the operating cost here from the figures obtained from the companies, while there it was an estimate. I am aware of the litigation being carried on in Chicago, and was inevitably influenced by the opinion expressed to me by Mr. Ashton that there was hope of doing something from a legal standpoint; so I could not assume that there is a hopeless situation in the pending litigation. If the situation were

absolutely hopeless before the courts I would somewhat alter my figures.

"I sat with the officials of the gas company and figured what the cost of 26-candlepower gas is upon certain figures of cost and material given me by the company. Upon the basis of 3 cents per gallon for oil, I agreed with the attorney of the gas company, Mr. Meagher, that the oil would cost 14 cents per thousand cubic feet; that coke, upon a basis of \$5.50 per ton, would cost 9.06 cents; boiler coal would cost 2.02 cents; labor cost, 2 cents; supply, 1 cent; purification, 1 cent; repairs, 2 cents; or a total of 30.8 cents as the cost of gas in the holder. There was no misrepresentation in regard to the price of 30.8 cents figured; but the gas attorney did not know the exact prices. I figured on the basis of these assumed figures, which, however, were evidently wrong. I therefore went outside of these figures and assumed those of the Ogden Company, because there I had the first absolutely definite statement from the company, which I assumed to be right. I do not think they were any too low, because if it cost more than that the company would have so stated.

"I do not remember making the statement that 90 cents was a fair price for gas in Chicago when testifying before the Senate committee at Springfield in 1897. Since that time labor and material have tended to rise, but the growth of the city, on the other hand, has tended to reduce the distribution of cost."

STATEMENT OF MR. E. G. COWDERY, OF ST. LOUIS, MO.

Given before the committee on gas, oil, and electric light, Saturday, December 30, 1905, relative to a reasonable price for the manufacture and distribution of gas:

"Regarding capitalization per thousand feet of annual output, I will say that I have taken a company and replaced it absolutely from beginning to end, and I know positively that it would not be possible to replace the company here in Chicago with its first-class property and its business for less than \$5 per thousand feet of annual output. I would consider it a physical impossibility to replace the plant and business of the People's Company for \$35,000,000. I consider it a physical impossibility to replace it in two years' time. The People's Company has about 2,000 miles of mains, I am told, and, in my best judgment, it would take from 10,000 to 15,000 men, working constantly, summer and winter, two years to lay 2,000 miles of mains.

"I think it would be wise for me to give a few differences between Mr. Bemis and myself, as I listened to his testimony yesterday. There are two or three serious mistakes of Mr. Bemis's that should be commented upon, to give the committee the proper enlightenment.

"Mr. Bemis states that repairs, renewals, depreciation, reserve, and surplus would all be covered by 10 cents a thousand, and I will make the flat statement that this is a physical impossibility in any city in this country, and that any man that undertakes to conduct a company upon those lines would throw his company into bankruptcy, or it would fail to pay dividends. I make the statement that repairs and renewals, as they should be made every year, with a company conducting its business properly, would require in the neighborhood of 10 cents per thousand, and unless some extraordinary allowance were made for extraordinary things that would happen, some other means

must be found by the company to raise the money for such purposes. Mr. Bemis can not possibly show this to be different, if he takes conditions as they exist in this country. In a water-gas plant repairs and renewals will cost little less than in a coal-gas plant, and it might be proper to say that in a water-gas works operated alone the repairs and renewals might be made with 8 to 9 cents, and in a coal-gas works they might run from 10 to 12 cents.

"Mr. Bemis refers to Mr. Humphreys's testimony at Holyoke, and I note that Mr. Bemis twists Mr. Humphreys's testimony by putting his own words to that testimony to give it the desired effect. If this committee desires to take Mr. Humphreys's testimony into consideration it should get Mr. Humphreys to give his own testimony in Chicago, and I would have great confidence in it. Mr. Humphreys was for many years general superintendent of the United Gas Improvement Company, of Philadelphia, who controlled several gas works in this country, and he is acquainted with the cost in various works in large and small cities. He has been a manufacturer of water-gas apparatus, manufacturing and selling the same to gas companies, and within the last year has been elected president of Stevens's Institute.

"There should be a reserve fund of 10 cents per thousand to take care of future depreciation and emergencies that are liable to occur in this business. In a series of years it might be found that such surplus would be larger than would be necessary, but I regard it as a safe figure. I can not say that there is any company that is laying by just 10 cents for a reserve fund. The gas companies throughout the country have not been very systematic in their accounting. It is in recent years, when gas companies have been cutting down their prices to somewhere near low figures, that they have begun to figure out what is necessary to lay aside in funds to protect themselves. Usually they have simply run their business, paid their operating expenses, and put the balance in the surplus from which they have paid their dividends, and used the balance as they saw fit, trusting to luck for the future; but, with the low prices that gas companies are now making, they must figure further into the future and upon a safer basis.

"Mr. Bemis made the statement that a reduction in price would largely increase the profits of the company. The word 'largely' is improperly used. It is perfectly true that a reduction in price from \$4 to \$1 a thousand has increased the profits of the gas companies. It is well known, however, that you can not continue to the extent that you can reduce the price to nothing, and still make the same profit you did before.

"There are sales in Chicago to-day, we will assume, of 40,000 feet per customer. If gas is selling at \$1 a thousand, you will sell \$40 worth of gas per year. If you are selling gas at 90 cents it means that you will sell 44,000 feet per customer, of an increase per customer of 10 per cent, on account of reduction in price. At 75 cents you will sell 53,000 feet per customer, or an increase of 13,000 feet per customer, on account of the reduction in price. If you take 40,000 feet per customer and assume your cost at 53 cents, and that your profit is 47 cents, you have a resulting figure of \$18.80. If you take 44,000 feet at 37 cents profit—10 cents less—you have \$16.28, or a difference of \$2.52 per customer in profit. I assume that the People's Company has 350,000 customers at a loss of \$2.52 profit on each customer; it means a loss to the People's Company of \$882,000 a year. This is the

loss resulting from the reduction of the price from \$1 to 90 cents. That is, the company will lose that much after taking into consideration the increased consumption in gas that they can figure upon on account of the decreased price. It is necessary to make an assumption that there will be an increase in the number of customers. It is fair to assume that a few more customers will take gas at 90 cents than at \$1. I assume that there would be 10,000 additional customers. That would reduce the loss of \$882,000 to about \$850,000. If the price was made 75 cents, reducing the profit per customer from the present 47 cents down to 22 cents, the People's Company would lose annually \$2,500,000 after they had gotten the benefit of the increased consumption that comes with the decrease in price. If it be assumed that 50,000 new customers would be added by reducing the gas to 75 cents, there would still be a loss to the company of over \$2,000,000. The best information obtainable from companies in this country proves that these figures are reasonably correct. It is shown by companies giving illuminating and natural gas distribution. If a man has an annual gas bill of \$40 he will try to keep it at that figure, if not to reduce it. He certainly will not spend more for gas than \$40, and the decrease in price would simply mean to give him more gas for his money.

"From considering actual results that have been tabulated by several companies, I venture to say that 60 per cent of the consumers of the People's Company do not pay in excess of \$1 per month for gas bills. There is no profit whatever in serving a customer that does not use more than \$1 worth of gas in a month. The companies would make more money to-day if this 60 per cent of customers would stop using gas. The only purpose of the companies in encouraging these small users is to get them familiar with gas appliances, and thus get them to increase the amount of gas until they become more extensive users. I might say that, from my own experience in Milwaukee, where gas was reduced from time to time, from \$4 to \$1 a thousand, that as the price came down the consumption went up, so that about the same amount of money was received from each customer at all times.

"I might say that gas as a fuel at \$1 a thousand is cheaper than coal at such figures as one must pay in Chicago. It is cheaper for the party who is using gas with care and intelligence. There are many towns where gas is selling at \$1.25 per thousand where the companies are just as successful in introducing gas ranges and keeping them in use as in towns where gas is selling at 80 cents.

"Gas at \$1 per thousand for lighting is the cheapest artificial light that we have the privilege of using to-day. Gas can not be used for general heating purposes until it gets down to at least 50 cents a thousand. A small number of customers could be secured to use gas for heating at that price. It would not begin to be as cheap as anthracite coal until it gets down to about 30 cents a thousand. At 30 cents per thousand gas is about as cheap for the consumer as anthracite coal at \$6 a ton. To produce this result it should be used with a hot-water heating system; to be used in connection with a hot-air furnace, the price must be reduced to 20 cents a thousand in order to be equal to anthracite coal at \$6 a ton. The reduction in price from \$1 to 75 cents would not result in its being used for heating purposes. The

person using gas at 50 cents per thousand for heating would be paying something for convenience, cleanliness, and the luxury of having a gas fuel in place of a coal fuel.

"As I stated before, the property of the People's Company could not be replaced for less than \$5 a thousand feet of sales. I mean, to replace the property and business of the company would require at least that amount. I might say that these figures are made upon the basis of a city that has not the average amount of pavements that Chicago has. The amount which I have given would have to be increased if a large number of paved streets were to be considered. When I talk of replacing a plant at this price, I am not talking about structural value. It is manifestly unfair to scale these companies down to their structural value—which means the lowest possible figure that can be put upon the property in any way. It is wholly unfair to assume such a position. I believe myself that it is unwise to do anything but use the capitalization of the company as it exists. The fault of having extraordinarily large capital lies with the people and not with the companies. The fault may have originated with the promoter of such companies, who has made his money and gotten out. You should treat with the capital as it exists until some light is thrown upon the subject, or some way shown to relieve the situation which is not distinctly unfair. It is true of gas companies, as of other properties, that, if they are to serve the people best they must have some incentive. If their capital is destroyed or their profits are cut down to such a point that there is no incentive for better service, they will not subserve the best interests of the people. Whatever condition exists to-day exists because it has been permitted by the city and the city government, and by the people who have themselves made it possible.

"In arriving at a reasonable price for gas for Chicago, I would assume 30 cents as a fair figure for manufacturing, and I will assume 21 cents for distribution, for this cost of distribution has been reported by one of the companies; but, if I were to take a figure which would be an average figure of various cities, I would fix it higher; higher—say, 23½ cents.

"I will assume 23½ cents—30 cents for manufacture, 23½ cents for distribution, 10 cents for reserve, making in all 63½ cents. At 5 per cent on \$55,000,000 capitalization, with 11,000,000,000 feet distribution, it makes 25 cents for fixed charges. This is purely arbitrary, and I would not care to suggest this. Twenty-five cents added to 63½ cents gives 88½ cents.

"Now, the company has offered a price of 90 cents, which closely agrees with this result. And I will not hesitate to say that if I personally represented the city of Chicago and no other interest whatever, and was trying to do what was right, I would accept the company's proposition of 90 cents.

"Personally, I do not believe in reducing the price below \$1 for small consumers, and if I were in the place of the People's Company I would prefer the price of \$1 for the first thousand feet going through a meter each month, and then take 80 cents per thousand for all additional gas going through the same meter. In other words, I would prefer to take \$1 for the first thousand feet through any meter in a month, and 80 cents for any additional gas going through the same

meter during the month, than to take an average price of 90 cents. I think greater justice would be done to the people of Chicago and to the company by such a price than by a flat rate.

"I would not advise the fixing of a price for a term less than five years. I do not believe that a company can find out the true result of a change in price in less time than that. This will give the company a little time to build up a reserve fund and to find out just what it can accomplish; and a reserve fund can not be built up in that time that will be dangerous to the interests of anyone.

"I take the suggestion of 25 cents for interest and fixed charges made by the committee because the sum of that and my figures does not exceed the figure at which the People's Company is willing to furnish gas, and in that sense I accept the 25 cents; but I do not undertake to say what is a proper charge for interest and dividends. I have stated that the only capitalization from which I would compute is the capitalization of the company as it exists. I am willing to accept 25 cents as an allowance for interest and dividends, because in so doing my figures are brought within the limit of the offer of the company.

"I can not state what is a fair capitalization per mile of mains. It would vary greatly. Some cities have a mile of mains per thousand inhabitants; some more, and some less. I have never figured out and I would not trust myself to make a statement regarding such capitalization. I can give it per capita, and this seems to me to cover the ground. Per capita, I would suggest, between \$20 and \$25.

"I am a firm believer in the proposition that gas companies, as well as all other corporations, would be far better off to-day if they took the public into their confidence and published their whole business. I do not think there is any reason for undertaking to conduct such corporations purely under cover.

"If the increase in the percentage of meters is higher than the increase in the percentage of mains, the company should be benefited—that is, it would tend to decrease the cost of distribution. If it costs a company 30 cents to manufacture gas, and it can buy it from another company for 20 cents, this fact should be taken into consideration in arriving at the cost of its product, whether it be manufactured by itself or bought.

"I think a company might be justified in buying gas at a higher price than it would cost to manufacture it itself. A company might not have sufficient capacity to manufacture all the gas it needed, and, having an opportunity to buy from another company, it might see fit to do so instead of interesting more capital for the purpose of building up its works. When there are two or more companies in a city, it is a natural thing for them to do—buy gas of each other. I think one company selling gas to another—even though they have mutual connections—would desire to sell such gas at a profit.

"I do not suppose that there is another condition in the United States where a company is called upon to supply such a large territory and an equal number of customers as is required here in Chicago."

"The average percentage of errors in meters is not over 8 per cent, except in the case where a meter stops registering altogether. Usually, among companies, there are more meters showing a loss to the company than there are showing a gain to the company."

STATEMENT OF MR. ALEXANDER C. HUMPHREYS, OF NEW YORK CITY.

Given before the committee on gas, oil, and electric light on Monday, January 8, 1906, relative to a reasonable price for the manufacture and distribution of gas.

"I entered the gas business in 1871 as secretary of a small suburban company. I was afterwards made superintendent of that company, my experience before, for a number of years, having been in a commercial line. Before entering the gas business I was assistant general bookkeeper of the New York Guarantee and Indemnity Company, which is now the Indemnity Company of New York. So I went in with an experience in accounting. After a few years I found I could not control the scientific and practical ends of the business without more education. So at a late day, somewhat, in life I entered Stevens Institute, and graduated from there in the year 1881, keeping up my work as manager of the gas company in the meantime. I then became chief engineer of the Pintsch Lighting Company, which has to do especially with the distribution of rich oil gas in the lighting of cars, steamboats, buoys, light-houses, etc. In 1885 I was made general construction engineer of the United Gas Improvement Company, of Philadelphia. At the end of three months I was made general superintendent of all their properties. After two or three years more I was given entire charge of all their business, including engineering, operating, and commercial business. I stayed with the company ten years. In the meantime, with their consent, I had organized the firm of Humphreys & Glasgow, for construction work in foreign countries. At the end of two years more I resigned and formed the firm of Humphreys & Glasgow, of New York. In the London firm we have confined ourselves to the construction of gas works. In the New York firm we have, for the last eight years, confined ourselves to advising in regard to the construction and operation of gas works, especially advising bankers interested in such securities, as well as operating some of our own companies.

"I am at present president of the Buffalo Gas Company, which is a consolidation of the four companies of that city. My experience, therefore, has been a wide one, as I have at times had as many as fifty companies under my direct control. I am now president of the Stevens Institute of Technology.

"I think, in justice to myself, I must say at the outset that it has not been my practice to give advice in my particular lines—my specialty—without a thorough examination. I have not had the opportunity to make such an examination here, nor would I have within the limits that you have set as to time. You can, to a certain extent, use the experience of a man like myself in a general way, but when you get down to small differences I should want to go to the works and the books and satisfy myself from the books quite as much as from the works. That would, however, be chiefly in regard to differentiating between certain features of the management.

"I am, however, more or less familiar with Chicago's general conditions. At one time the United Gas Improvement Company was largely interested in the works in Chicago, so much so that I was called upon at one time to examine into the details of the management, con-

struction, etc., extending over a period of about three months; but that was over twelve years ago. The conditions have changed somewhat, but the company's general conditions, in a large measure, are probably the same. I have kept more or less in touch with Chicago.

"Conditions must be studied first, and you must use experience, and a very large amount of experience with very considerate judgment, to determine whether figures applicable to one city are applicable to another. Some years ago I was called upon by the United Gas Improvement Company to compare the figures of one western city with those of another, where the difference in selling price, as I recollect, was about 40 cents; and I proved beyond a question that with one company the works were better managed and more efficiently operated, although the other company was selling gas at the lower price. Local conditions must change the result; therefore I am not in favor of going into generalizations and depending too much upon statistics. In training a young man in business engineering in our institute I often give the boys this advice before they graduate: 'Be very careful how you analyze data, bearing in mind that figures can be made to lie more easily than they can be made to tell the truth; and do not ever take anything as a statement of fact until you know the man who has made the statement and his ability as well as his integrity.' From what I know in general about the gas business throughout the United States and foreign parts, I should have been inclined to accept a higher cost than by the figures presented here in Chicago.

"I understand that all water gas is manufactured here. It strikes me that the figures are low for water gas manufactured to-day, and the price is certainly a reasonable one. Especially bear in mind this fact: That oil prices are constantly going up and the quality is going down. When I speak of the quality, I particularly refer to such oil as we now have to use from Texas, and a good deal of it is being shipped, I am sorry to say, to the companies that we have built up, where we have made guaranties and find it difficult to live up to them with this oil. Such oil will in the summer time give us about as good a result or pretty nearly as good a result as some of the oils in past days; but when it comes to winter, it will not do for this reason: That this oil makes a large amount of vapor, which, in the summer, under a higher temperature, is carried into the gas successfully, but as soon as it is subjected to the lower temperature the oil which is going forward in the form of vapor is deposited in the pipes and does not reach the consumer's burner. Therefore, we find that under present conditions we have to put the gas in the holder at a good deal higher candlepower than the candlepower we have determined to supply in the burner. In fact, that has always been the custom; but it is a good deal more so to-day than it was ten or twenty years ago, when I was largely instrumental in developing the present form of water-gas apparatus.

"Regarding the figures presented for manufacture and distribution, I presume that it is the general classification of making manufacturing items cover everything in the works, and then dumping everything else into one general heading of 'distribution,' and by adding the two to get the total cost in the burner.

"I should say that 21.71 cents is a reasonable figure for distribution. By close investigation and application—by getting it down

to the tenth of a cent on items, for instance—by working it out in the minutest details, it might be possible to get the total down to 50 cents. Of course, that is generalization.

“Regarding the question of depreciation, I would say that while it seems to me an extremely simple one, I know from experience that it is an extremely complicated one, and I want to say there is no one branch of the business that I have probably given as much thought to as to this particular question of depreciation. The confusion largely arises from the fact that we mix our terms. The accountants will make titles that they think will cover the charges going into their books without stopping to think whether one title agrees with another or whether they dovetail together. To explain:

“We have a certain property and it is put into use, and we know just as well as can be that the property is going to depreciate from the time it is put into use with this possible exception, that, perhaps, for the first year or so the property will have to find itself—the same as Kipling’s ship has to find itself in his story. Therefore, probably the first year the property is not depreciating, but it is getting to do its work sweeter—just as we know a saw will after it has been used a little.

“Now, that depreciation will go on running night and day until the plant is worn out. It will show itself in various ways, and on account of the variations in the ways in which it shows itself the accountants have started different forms of accounting. A bottle breaks; a valve leaks; we have to repair a belt, or we have to renew a belt—two different things. It is all on account of depreciation. A valve leaks—we have to regrind the valve seat, which is a repair, or we may have to take that valve seat out, and we may call it repair. But it is really a renewal of one part of the apparatus. Now, in all these little things we have been in the habit of calling them repairs, and a repair is in general to correct for depreciation. The accountants say repairs and depreciation. One is the cause, and the other is the method taken to correct the damage done by that cause. Now, at the end of the year we will find that they have in the repair account—and, more correctly speaking, not ‘repairs or renewals,’ but ‘repairs and renewals’—certain items charged up which we would have to pay for because we could not run the works if we did not. Now, there are certain other things going to happen which we can not contemplate definitely, and the best we can do is to use our experience and the results from statistics, take the experience of men who understand the business, and thus say about how much this accruing liability owing to depreciation will amount to.

“At the end of the year we have paid a certain amount for repairs and renewals. There has a certain amount of depreciation occurred during that year which has not been paid for, but it must be paid for out of the earnings of the year or we must deplete our capital. So we have to determine how much we shall set aside from year to year out of our profits, making the best possible estimate we can to be on the safe side as conservative men, to take care of that accrued and accruing depreciation—just as real a loss as the coal that goes into the boiler.

“Now, that accruing and accrued depreciation will be of two characters: There will be certain things, like a boiler, which may give out in ten years or twenty years. They might be taken care of by

paving for them out of the earnings for the year in which they fall in, though it would be a dangerous practice. It would almost invariably lead to a variation in dividends, or at least to a variation in profits. But beyond all that, there is the depreciation, which will finally result in the main parts of the plant having to be abandoned, and that is the main thing that must be covered by what we call depreciation. It would be a great deal better for the company to set aside a fund for depreciation—paying for depreciation by setting aside a certain amount each year. It could be called a reserve for depreciation, and that would be an excellent title for it. Such is the title frequently used in Europe, where, with all due respect, they are a little more logical in their accounting than we are in this country. The title I frequently use is 'Depreciation sinking fund,' 'Depreciation reserve.'

"Having determined the amount of depreciation and how much that is per thousand, reckoned on the sales, then the question comes: 'What shall we do with that amount of money that we have taken out of our profits so that when the day comes to renew the plant we will have the money to renew it with?' It is not enough to do as is sometimes the practice—show the reduction in the asset without giving thought as to what we shall do with the liability; but we must provide the funds with which to renew the plant. The method I prefer is to set up a sinking fund at compound interest. We can figure up very easily how much is required at a certain percentage on your capital each year, and put aside each year a certain sinking fund that, with the interest, will produce the amount necessary when the property has lived its life.

"But another way has been used, more especially in America, and that is to take what they call erroneous surplus earnings and put that into extensions of the plant, with the idea that as the plant is extended while the plant on the other side has not been provided for, yet the asset is now even, and this is a perfectly legitimate way, but it is not taken out of the surplus earnings. The earnings have not been figured out until such amounts have been taken out. It is just as real a charge against the business as coal or labor. It will deplete the capital just as readily if you try to pay for it out of your capital.

"If we were going to set up a sinking fund, we would determine how much was required per thousand feet, determine the per cent on the depreciable property, and see how much at 4 per cent—if we thought we could make 4 per cent throughout the term—would be required; and put such per cent of the property into the sinking fund each year. If we are going to put into our plant, we would then have to bear in mind that the increased earnings of the plant so put in would be merged with our general earnings. We could not aggregate these earnings, because it would be too complicated and absolutely unnecessary. We would simply, if we determined that the plant had twenty years of life, take from our earnings one-twentieth of the amount that went into the extensions of the plant. That ought to increase our earnings on the property and, while we would have to put more in each year, we would have a greater amount to pay it with, and I always prefer very much to follow this method.

"Of course the reason why the last method—taking one-twentieth—has been followed by gas companies in the past has been for two or

three reasons: Gas companies have—especially in the West—continually been up against it by reason of the need of further capital to take care of their extensions. Now, if they did this—took this amount of money and put it into the bank for a sinking fund—it simply means that they would have to go and get more capital from the stockholders all the time. In the past the gas companies have done fairly well, have paid a fair interest, have had surplus profits which they put back in this way, and therefore they were taking care of the depreciation, in my opinion, in many cases not knowing it. The day has come when they have got to figure very closely in the gas business. They must figure these things with care and know exactly what they have got to do, and especially if the price is to be controlled.

“It is getting to be the general custom of the companies to set aside a depreciation reserve in one form or another. We know that the properties are depreciating, and the only safety is to have such a margin between nominal cost, which does not take into account depreciation, and real cost, to give a sufficient sum to put back into the business to take care of its depreciation.

“I understand I have been quoted in the Holyoke case. This case was an extremely interesting one, and is a very complicated one. It was the case of a city wishing to take over the plant of the Holyoke Water Tower Company under a law recently passed in Massachusetts. When we came to examine their books we found that they had kept an account with the gas works and that the debits were dumped in on one side, the credits on the other, and as this extended over many years, there was a large amount of analysis to be done to determine whether a thing was a repair or whether it was a construction item—construction or repairs, they were all in together. We had to analyze those items within a certain time. Having made up for reference a statement of construction items, whether repairs or construction proper, we went through each amount and determined which were construction and which were probably repair amounts. We found that the total was 11.16 cents, and I divided that up between repairs of works and repairs of distribution and found a certain amount left, which I thought we could fairly put against the depreciation, which had not yet been discovered.

“Mr. Bemis probably did not take into consideration that I was talking about Holyoke alone. I was not talking of matters applicable to gas companies in general, and I was thinking of the simplicity of Holyoke conditions. The Holyoke plant is not a coal-gas plant exclusively, or was not then. The amount of coal gas made at that time was less than two-thirds and the amount of water gas more than one-third of the output. It was a combined plant. But the chief point is that those were Holyoke conditions. If there is any man in the business that has ever refused to be led into generalizations, I am that man, because of my bitter experiences. I would never go on a stand and claim that what was applicable to Holyoke was applicable to all the companies in the United States. Holyoke is a very simple New England town, not hampered by local conditions in any way, no congestion of traffic, no trouble from electrolysis, while in Chicago I suppose the conditions, next to New York, are the most complicated in the United States—congestion of traffic, considerable pavement, unquestionably a tremendous danger from electrolysis, and

the expense for work much greater than in a place like Holyoke, especially on labor account. I think there they were not paying over \$2 a day for twelve hours' work in the gas house, and for common labor \$1.25 or \$1.50. Now, that the Holyoke plant is in the hands of the city and under the control of the commissioners, they are making them set aside 5 per cent a year on depreciable property, as well as putting aside enough to redeem their bonds in fifteen years. I think the amount to be set aside is in the neighborhood of 25 cents per thousand, between 20 and 25 cents.

"Some years ago a certain gas company came into New York, and the man who made the estimates for the pipe laying of the company, an extremely able man, a man who had been successful right along, was found to be away off on his estimates on pipe. I think I am safe in saying that the cost was three times what he expected, and his explanation to me was this: 'I have never had to do with a metropolitan city before, and I had no conception of how the cost would run up as compared with a city of 200,000 inhabitants.'

"I have seen in New York, for instance, right near my residence, men struggling for a week to get around an obstruction in the street, putting in all the talent they had and then finding that the parts they had made and the drawings they had made to get around some place did not fit, and all work would stop and they would be forced to wait until they had sent to the foundry for other parts to be made, and then come back and do the work all over again. This costs money.

"In addition to current repairs and renewals paid for from year to year, there is the item of accruing depreciation. But when you go to the question of reserve you have the contingencies of the business outside of the contingency of depreciation. I do not look upon depreciation as a contingency. It is a fact. I do not say that it is an abnormal depreciation or something that is not likely to occur, but it is something that does occur. There are certain contingencies that we must take care of, and no living man can tell in advance what they are going to be. I refer to one which could not have been foreseen years ago—that is, depreciation on account of electrolysis—and it can not be estimated to-day, for no man can estimate what electrolysis is going to do. No man knows enough about the gas business to say when pipes will give out on account of electrolysis. It is a subject that is being investigated closely by gas men, and my partner happens to be chairman of the committee that is investigating it for the American Gas Light Association.

"I started out feeling a little pessimistic about it, and after reading the draft of his report the other day, I am a great deal more so. This question of electrolysis is a very serious one. We find that pipes are charged with a definite potential, a definite amount of current, and we know that that current is leaking from the pipes into the ground, especially the moist ground. We know that it has the effect of cutting away the pipe. We know that night and day it is going on, and we have every reason to believe that sooner or later it is going to get into our system seriously. As long ago as 1894 we found definitely that in the city of Atlanta electrolysis had already greatly injured their pipes, and we had to do a large amount of work on account of it. I went there and saw it myself, handled the pipes,

and there wasn't any doubt of electrolysis, for it was all through certain districts.

"In addition to electrolysis there are other things that come in, and very serious things. And, as I will tell you, the English people cover those in a different way. There is the question of variation in price and material. We know that coal and oil change in value, and we have seen very material changes in the last five years. We know that iron in different parts is largely changing in value, and that has to be used, not only in construction, but in operation—in renewals, etc., and the price has to be taken into account. Service pipes that are cut out have to be renewed, and it is an operating charge that is part of the repair and distribution system. Those repairs to-day are costing considerably more money per unit than they were ten years ago. As prudent business men we know that we can not take the minimum of everything and say that that is what it would cost because it is costing that now. We must have some elasticity. In ordinary business we have elasticity in the ability to shift our prices, and that is what they do in England. They have permission to do so from Parliament. But that could not be done here, and certainly not if the price is to be controlled by any legislative body. I have a case in mind where within five years the coal bill from one year to another varied \$50,000, and this was not a large company either.

"I think a fair figure for repairs and current renewals would be about 10 cents, provided you could have 5 cents more for accruing depreciation. There still remains the question concerning these contingencies, such as electrolysis, variation of the price of materials, possible explosions, fires, etc., and I think that you ought to add about 5 cents more for that. Regarding the contingencies and extraordinary things that may happen, we can consider for a moment the practice in England.

"These matters there are all decided by national government. Parliament as the legislative body, and the board of trade as the executive body. There they take this position: That if they control the price of gas and control the dividends to be declared, they must also leave safe margins for companies to operate under. Under the new model bill the companies are permitted, and I think required, to put aside 1 per cent of their capital each year to provide for extraordinary things, as fires, explosions, and the like. This is regarded as an insurance fund. Whether the money can be used or not has to be determined by appealing to one of the courts especially charged with that duty. The fund can go on increasing until it becomes one-twentieth of the capital, when it must cease to be added to. If, however, it is depleted in any way, or drawn from, then the company commences to make it good. Having once established the twentieth, they keep it up to that amount. Beyond that is the well-known reserve fund, and I think it is rather curious that Parliament in saying that they shall not put aside an amount for depreciation distinctly does not seem to recognize that they cover it very fully in this reserve fund.

"They are permitted to put aside a certain amount each year, dependent in most cases on a sliding-scale arrangement which shall be held subject to the use of the company and not dictated about by the

court. For the evening up of dividends we would not need any depreciation fund if we could always pay out of the year's earnings the depreciation made manifest and still not reduce our dividends. So they are permitted there to draw from this reserve fund such an amount as will be necessary to keep their dividends even, and in extreme cases they are even allowed to raise the price of gas.

"Now, this reserve fund takes care of the fluctuations in the price of coal, etc., and that is what it is really for, the actual fluctuations and commercial conditions that no man can foretell. The extraordinary, unexpected, and unforeseen things that may occur are covered by this insurance fund. Now, these things are the things I would cover in my 5 cents for the final reserve.

"I can not say whether the figure '53.53' given by the Peoples Company contains the full 10 cents for current depreciation, repairs, and renewals or not. I believe that if they have put in less than 10 cents they will find that they have got depreciation to take care of over and above the ordinary running depreciation—that is to say, that their repairs are creeping up on them. At any rate, 5 cents for accruing depreciation and 5 cents for reserve should be added to that cost.

"Here are some interesting figures regarding English companies. As I have stated they are not allowed to charge specifically for accruing depreciation. Now, naturally their tendency will be to get into repairs everything that they honestly can. But you must also bear in mind that their accounts are all checked up by chartered accountants regularly. Under such circumstances the repairs would probably be as nearly correct as could be gotten in view of human weaknesses. And we will take the metropolitan district of London for one, and we find there three great companies—the Gas Light and Coke, the Commercial, and the South Metropolitan. Their items of repairs and renewals are, respectively, as follows: 11.44 cents, 13.44 cents, 13.80 cents, making an average of 12.89 cents. There is quite a little variation even in a city like London. These figures simply cover wear and tear, as they call it—what they pay out each year, not being permitted, as I say, to charge up any accruing depreciation, and they get that by the evening effect of their reserve fund to even up their dividends. The figures given are per thousand feet sold. The cost there for material and labor is lower than it is here.

"The highest governmental regulation in England is 16 candlepower, and in the south of England it is very often only 13 candlepower. In Scotland they run a higher candlepower. It varies according to the local conditions with reference to the material for making gas.

"I understand there is a difference of 2 candlepower in the gas furnished by the People's Company and the Ogden Company. I do not know the kind of oil which they are using. I will assume a price of 3½ cents a gallon. This would make a difference in the cost of about 1.4 cents for the 2 candles. It would be a little less during the summer and more during the winter.

"In taking up the subject of capitalization there comes in the question of structural value and business. I could put up a plant, the best in the world, and have no sales, and stay there perhaps waiting for people to come to me. I must spend money to get business. It is just as much a part of the capital as is the investment for bricks and stone and iron.

"The question of capitalization is one of the most complicated questions we have to deal with. We can not separate the question of capital from the question of what is a fair amount of income to be paid on the capital. The two must be taken together. If we are to be held down to paying interest on what has actually been put into the business, without any allowance for those expenses which can not be shown in actual tangible assets, then no doubt we must be allowed a higher percentage of profit. Therefore I say the two things must go together.

"In deciding upon what basis we must fix the capital, we must fix the return on the same. If you are going to keep down to the actual cost of building up a business, then I think we ought to have in a business like the gas business at least 10 per cent returns, and I am encouraged in that belief by the practice in England, especially of the older companies, where they are allowed 10 per cent.

"For illustration, let us take the figure of capitalization given by Mr. Bemis—\$3.20. At 10 per cent this would produce 32 cents. On the other hand, suppose we take the figure given by Mr. Cowdery—\$5. Then I would say that perhaps a lower per cent would be fair.

"If you take the higher capital, then you ought to be content with a lower per cent; but if you are going to be held right down to not even structural value, but to the actual money that has been put in, then you should get at the very lowest 10 per cent.

"In attempting to arrive at a reasonable price for gas, I prefer to take the figures submitted by the company as the cost—53.53 cents—because they know more about their books than does Mr. Bemis. Certainly if he takes my Holyoke figures, he is absolutely wrong. I understand that 53.53 cents includes 6.61 cents for repairs and renewals. In fact, they should allow 10 cents. Therefore there would be 3.39 cents to add to bring it up to 10 cents for renewals. I am taking 10 cents as the amount necessary to cover repairs and renewals. As we have seen, the English companies run above that. I am going to allow 5 cents for accruing depreciation. Now, we have 53.53 cents cost given by the company. Add to that 3.39 cents, the difference between their renewals and repairs and my allowance of 10 cents; then add 5 cents per thousand for accruing liability of depreciation, and we have 61.92 cents. Now, in addition to that cost, which I believe to be just as real as the cost of the coal, I believe it will be absolutely fair to allow an additional 5 cents as a reserve fund for contingencies, which will bring it up to 66.92 cents per thousand. To this amount must be added the interest, which may be figured in many different ways.

"In making these figures I am at a great disadvantage. I have not the basis upon which to work. I make certain claims as to what is required to cover repairs and current renewals and then what is required in addition for accruing depreciation; but in doing so I have taken certain figures given to me as showing what has been included in those accounts, but I can not tell whether they have been included or not.

"In addition, we must take into account the things which are liable to happen which may not happen, but which should be provided for if they do happen, and if by taking account of those things which may happen but can not be calculated upon a large surplus fund should be built up, then it is unmistakably my opinion that such reserve fund should never be capitalized; that we should

follow the English practice, and when it gets to a certain amount hold it there as a reserve fund. Let the payments to the reserve fund cease for the time being. Let it be used strictly for that purpose. But the accruing liability on account of the depreciation, I assert and repeat, is just as real as the labor and the coal. If I could tell you what is included in the 53.53 cents, I believe I could make a calculation with a fair degree of accuracy.

"In discussing the question of difference in cost of distribution between the two companies, we are up against the classification of accounts. I do not know but that I could take these two accounts and vary them considerably—taking from one and adding to the other—and I believe I was doing the right thing. Certain companies have certain ways of charging up their general expenses. One will say, We will charge one-third to distribution and two-thirds to manufacture, and others will charge up differently. Therefore, when you come to these close discriminations and draw any definite conclusions from them you are following a very unsafe course.

"I would estimate the cost of structural value alone, disassociated from the cost of getting business, at \$4 per thousand feet of sales.

"I understand that Professor Bemis stated that 5 per cent on the capitalization, based on \$3.20 as the cost of the plant per thousand, would be a satisfactory return. The proposition to me seems ridiculous, and I have had a very large experience in getting capital invested. In addition to the structural cost, there is necessarily a large amount of capital that goes into building up the business. The capitalization of the People's Company is given to me as \$68,000,000. The questions of capital and interest are wrapped up in each other. Of course I would not for a moment say that on the basis of \$68,000,000 10 per cent ought to be paid. On a basis of \$4 per thousand feet of output I think 10 per cent would be high. I think about 8 per cent income would be all right.

"The question of what is a fair capitalization per thousand, taking into consideration the getting of business, is a hard question to discuss without knowing more than I do know regarding details here. But I should think that between \$4.50 and \$5 would be a reasonable capitalization. When I went into business we were charging in many places \$4 per thousand feet for gas, and in larger cities \$2.50 and \$3. It did not require a great deal of business acumen to see that you could make more money cutting the price; but this does not establish the general proposition that we can keep on reducing until we get to 10 cents, when we could make more money at \$1. This is, of course, absurd. The question is, Where must we stop, so that the people may get their dues from the company and the company itself a fair profit?

"I believe that the gas companies, as a rule, can be trusted to get down to the price where they believe they will get the most profit. They make mistakes, and undoubtedly have in the past, by not getting down fast enough, and I do not believe there is much more of this to be done until our conditions change in America. I think we are getting close to the place where a cut in the price is going to be a cut in the profits. We can go down to a certain point and cut down our cost by the increased make or the increased distribution, but after awhile we get to a point where we have got to the economical unit for development, and then we do not get the decreased cost.

"Suppose we had to-day a 10,000,000 unit and we were only using 6,000,000 of it, and we got that up to its maximum output. We get a decreased cost and an increased profit on that unit. Now, suppose the demand was such that we had to put in another unit and, looking to the future, we felt it was not advisable to put in any less than a unit, and we put in the additional unit. That unit would not be working to its maximum efficiency for the present. It would not be turning out gas as cheap as the other unit, and it is possible the cost might be increased later on by the addition.

"I think after you get to any such size of business as the present People's Company has that you can not reckon on much by increased business, and I am tempted now, as a conservative business man, to say that this company must look out, for the thing is getting so big that it will be almost too big to handle, and there might be an increase of difficulty of management on that account. I would not regard it as a reasonable proposition for this committee to rely on the increase of business that would come to the company as the result of reduction in the price of gas to furnish it a reasonable profit on its investment.

"There are very few companies in cities of over 50,000 inhabitants supplying gas at 75 cents per thousand. Cleveland gets material cheap, and the company there has a very low capitalization. It is right down to hardpan. They made their extensions years ago under the high price, and while distributing a low rate of interest, the company having been in the hands of a few strong men, and one man especially, a conservative man, who was satisfied to take a reasonably small return; and therefore they kept building up the plant from their earnings.

"In Cincinnati, under General Hickenlooper, they ran low candlepower. He believed in a low price for his gas, giving a large volume with low candlepower. Permit me to say a word about Richmond, because it will exemplify what I say about accrued depreciation.

"Richmond has been looking around for sometime to know what to do. It has endeavored to hire a number of engineers to tell her. They finally hired a man who was very competent and who went there to see about extensions of property, extensions of plant, etc. He found that, in addition to the money to be spent to extend the property, it was necessary for them to spend \$709,000 to renew what had fallen into bad repair. There is \$700,000 odd to be paid for what might have been charged against the gas in the past.

"Upon my return I will send my conclusions from the information at hand, as to what would be a reasonable price for gas, and stating the elements which go to make up that price.

"I am sorry, gentlemen, that I have not had an opportunity to make a more careful examination, and give you more details."

Your committee has considered very carefully the report made by the auditors, and the statements made before your committee by the gas experts. The subject is largely a technical one. Our results are obtained by considering the information given to the committee by experts, and by the exercise of our best business judgment.

We have decided to report 85 cents per thousand cubic feet as a reasonable price to be charged for gas in Chicago, and in so doing, we believe we are reporting a price which will successfully stand the test of litigation in case the gas companies should seek relief in the courts. It is recommended that this price be fixed for a period of five years.

A brief explanation is presented, showing the course of reason followed by your committee in arriving at the price of 85 cents. The cost of manufacture and distribution is taken as indicated by the report of the auditors—45.4548 cents. This, the auditors state, includes 6.0043 cents for repairs and renewals. Messrs. Bemis, Cowdery, and Humphreys practically agreed that 10 cents is a fair allowance for current repairs and renewals. The difference between 10 cents and 6.0043 cents is 3.9957 cents, which is added as additional allowance in order to make the full 10 cents. This gives 49.4505 cents as the cost of manufacture and distribution, including current repairs and renewals. This is approximately 50 cents, and we so call it for convenience. A reserve of 5 cents is added for contingencies. Mr. Cowdery and Mr. Humphreys agreed that \$5 per thousand cubic feet of gas sold is a fair allowance for capitalization, representing structural value and working capital to secure the business. Upon this we allow an income of 6 per cent, or 30 cents per thousand feet. In this way, a total cost of 85 cents is reached.

Constituent amounts in the price of 85 cents per thousand cubic feet.

	Cents.
Cost of manufacture.....	28.2204
Cost of distribution.....	17.2344
(This includes 6.0043 cents for repairs and renewals).....	45.4548
Additional allowance for current repairs and renewals.....	3.9957
	<u>49.4505</u>
Approximate cost (allowing full 10 cents, repairs and renewals).....	50.0000
Reserve for contingencies.....	5.0000
6 per cent on capitalization of \$5 per 1,000 feet gas sold.....	30.0000
	<u>85.0000</u>
Total per 1,000 feet	85.0000

By a second course of reasoning presented in the committee, a similar final result is reached. This is done by taking the approximate cost of manufacture and distribution, including current renewals and repairs, as above, 50 cents. Mr. Humphreys and Mr. Cowdery agreed that 5 cents per thousand should be allowed for accruing depreciation, and 5 cents per thousand also for contingencies, or 10 cents per thousand for both; with a more liberal allowance in this way for reserve, it might be fair to compute the rate of income by allowing 5 per cent instead of 6 per cent. Five per cent on a capitalization of \$5 per thousand cubic feet gives 25 cents. This makes a total of 85 cents.

Constituent amounts in the price of 85 cents per thousand cubic feet.

	Cents.
Cost of manufacture and distribution, including current renewals and repairs....	50
Allowance for accruing depreciation.....	5
Reserve for contingencies.....	5
5 per cent on capitalization of \$5 per 1,000 feet gas sold.....	25
	<u>85</u>
Total per 1,000 feet.....	85

The representatives of the Peoples Company and the Ogden Company strenuously refused to accept the price of 85 cents, as fixed by

the committee. However, Mr. Meagher, representing the Peoples Company, stated that if his company were given the privilege of buying gas from other companies or of leasing mains or plants of other companies, some additional concession would be made by his company, and therefore a price of 88 cents would probably be accepted by his company.

After considerable discursion the committee decided to concede such privilege, with the understanding that a reasonable consideration should be made for the same. Since the year 1901 there has been no settlement between the city and the Peoples Company, with reference to the claims of the city for compensation, and of the Peoples Company for gas supplied the city for street lighting. At the time of the last adjustment of these matters, there was due the city, as shown by the report of the comptroller, \$50,657.41. On December 7, 1905, Corporation Counsel Lewis appeared before the committee and gave his opinion orally regarding said claims. He then stated:

"From that time, 1901, there has been no written contract whatever between the city of Chicago and the gas company relating to the price we should pay for gas, on the one hand, or what they should pay for compensation or privileges on the other. Therefore, we have been using gas of the company from that time to the present, and are indebted for it. We are also indebted for such furnishings and lamps as they have given to us. From the aggregate of these two items you get the indebtedness of the city of Chicago to the gas company. Under the terms of the Economic Fuel Gas Company ordinance, there is a legal provision by which the city is to receive 3 per cent of the gross receipts from one of the elements or kinds of gas, and 5 per cent from the other. Under the ordinance it is provided that you should have annual reports each year of what business the gas company has done, and the relative proportion of which should come to the city. These reports have not been made out any year nor filed in the comptroller's office, but the contract provides that it was in the power and the privilege of the gas company to credit the city of Chicago such an amount as might be due the city under this ordinance. * * * That, you will readily see, gentlemen, has been purely a matter of bookkeeping, and the comptroller's books are the only source from which you could get statements."

The comptroller has since called for statements by the company, and as a result it is indicated that there is due the city, to and including the year 1904, as compensation from the Economic Fuel Gas Company, \$281,985.67; the total amount due the Peoples Company, to and including the year 1905, for gas supplied the city since the last adjustment of accounts is \$1,263,546.38; this leaves a balance of \$981,560.71 due the Peoples Company from the city. This amount will be subject to change by being brought down to amount due at the date of the passage of the ordinance.

As a consideration for allowing the additional privilege asked for by Mr. Meagher, on the part of his company, the committee demanded an absolute release and waiver of the balance due the company, as above indicated. The Economic Fuel Gas Company shall continue to pay its compensation on natural gas sold. The Ogden Company is indebted to the city in the amount of about \$117,000 as compensation, payments for compensation having been deferred since the suit was instituted by the city of Chicago against the Ogden

Company. This amount is to become immediately payable to the city. It was further agreed that the committee would recommend the dismissal of the suit now pending between the city and the Ogden Company.

It is not intended on the part of the committee to recommend any change so far as pending litigation is concerned between the city of Chicago and the People's Company under the ordinance of 1900 fixing the rate of 75 cents for gas. It is the judgment of the committee that such litigation should be settled entirely on its merits.

The further privilege asked for by the companies—the right to buy gas or to lease the mains or plants from each other—does not contemplate consolidation of the companies. The People's Company is now buying gas of the Universal Company and of the Northwestern Company, and has been doing so for years. Mr. Cowdery testified before the committee that this is a common practice. Professor Bemis stated to the committee that in his opinion the business of supplying gas is a natural monopoly. The arrangement asked for is a temporary one and the results may be beneficial even to the people. In view of the added consideration for this privilege the committee thinks it should be granted.

There are attached to this report and made a part of it several exhibits to which the attention of the members of the council is directed.

Exhibit E presents a statement of the stocks and bonds issued by the People's Company. This statement was furnished to the committee by Mr. Meagher.

Exhibit F presents figures showing the cost of manufacture and distribution and the supply of gas by the Consolidated Gas Company of New York for the year 1904. These figures were reported by the Senate committee which made a thorough investigation into the subject. They are given here for the reason that comparison seems reasonable, to some extent, between New York City and Chicago. The conditions of these two cities are more nearly alike than those of any other large city as compared with Chicago.

We desire to call particular attention to Exhibits G and H, giving valuable statistics with reference to matters directly pertinent to this subject. Particular reference is here made to some of the figures presented in Exhibit H:

	United States.	Illinois.
Average price per 1,000 cubic feet gas sold.....	\$1.035	\$0.903
Average capitalization per 1,000 cubic feet.....	\$8.47	\$8.42
Average charge for interest and dividends per 1,000 cubic feet.....	\$0.377	\$0.425
Average structural value per 1,000 cubic feet.....	\$0.723	\$0.793
Average cost of materials per 1,000 cubic feet.....	\$0.307	\$0.211
Average cost of miscellaneous expenses per 1,000 cubic feet.....	\$0.22	\$0.111
Average cost of gas per 1,000 cubic feet of sales.....	\$0.791	\$0.544
Total number of municipal plants.....		15
Average price charged for gas.....		\$0.929
Average capitalization per 1,000 cubic feet.....		\$3.57
Average structural value per 1,000 cubic feet.....		\$3.42
Average cost of materials per 1,000 cubic feet.....		\$0.315
Average cost of miscellaneous expenses per 1,000 cubic feet.....		\$0.124
Average cost of gas per 1,000 cubic feet of sales.....		\$0.724

Exhibit I presents statement of operations and balance sheet of the People's Company covering the period from 1897 to 1904, inclusive. This is taken from the Investors' Manual of 1905.

It seems to your committee that the desirability of now reaching an agreement with the companies with reference to a maximum rate is evidenced by the futility, so far, of the effort to secure cheaper gas for the people of the city of Chicago under the ordinance of October 15, 1900, fixing the rate of 75 cents. A brief reference here to the litigation following the passage of such ordinance may be of interest.

The ordinance of October 15, 1900, was to become effective January 1, 1901. On December 31, 1900, a bill was filed by the People's Gas Company restraining the city from the enforcement of this ordinance. The case was argued before Judge Grosscup and an oral opinion was rendered by the court January 15, 1902. This was followed by the filing of an amended bill by the People's Company June 5, 1902. On July 30, 1902, Judge Grosscup entered a decree dismissing the bill for want of jurisdiction.

The bill alleged that the charter of the gas company constituted a contract which was protected by the United States Constitution, and this was given as the ground for the jurisdiction of the United States court. The bill charged that by its charter the company had the right to sell gas throughout the city of Chicago and the city had not the right to compel the company to sell gas for less than \$3 per thousand. The court held that because divisional relief was not asked for the court was without jurisdiction; the bill having set up a charter extending throughout the city of Chicago and a number of other gas companies having been consolidated into the People's Company the court held that the protection of the charter did not extend throughout the city of Chicago, but only to the pipes laid by the company before the consolidation.

Inasmuch as the People's Company had not asked for divisional relief—that is, relief as to such territory as it had laid pipes in prior to the consolidation—there was no such contract as that alleged in the bill.

The judgment rendered was subsequently amended so as to be in effect without prejudice to any other suit in respect to the question of the power of the city council under the laws of the State of Illinois. The effect of this decision was against the company merely as to the contract set up, which covered the whole city. The supreme court affirmed this decision in April, 1904.

On June 8, 1903, Mr. D. O. Mills, a stockholder of the People's Company, filed a bill alleging that the city had no power to pass the ordinance of October 15, 1900. The city demurred to the bill, and the demurrer was overruled by Judge Grosscup January 25, 1904, the court holding that the city had no power under the laws of the State of Illinois to pass the ordinance of October 15, 1900.

The question was argued a second time, and again Judge Grosscup held that the city had no power to pass the ordinance, and entered an injunction restraining its enforcement. Thereafter the city filed an answer setting up collusion between said Mills and the gas company. This step again raised the question of jurisdiction. If the court should find the suit collusive, the effect of the finding would

be to dismiss the suit for want of jurisdiction. It would not in anywise prejudice a new suit for the purpose of litigating the question of the power of the city of Chicago to pass the ordinance or to question the reasonableness of the price named in that ordinance—75 cents.

The People's Company, under the decision of the United States Supreme Court, has the right to again raise the question of the contract contained in its charter as to all of the territory in which the original People's Company laid pipes prior to consolidation, and in all other territory in which it has laid pipes since 1897, because the State of Illinois, whose decision would be controlling, has in the meantime held that the effect of the consolidation was not the creation of a new company, and the decision of the highest court of the State on a construction of State statute would be controlling. This was the ruling in the quo warranto suit brought by the State's attorney. The question of the power of the city to pass the ordinance has not been litigated, and the company also has the right to litigate the question of the reasonableness of the price established.

It will thus be seen that more than five years have been consumed in litigation between the People's Company and the city without any definite result, and there still remain three different questions which may be successively litigated in the lower courts and in the supreme court. How many more years may be consumed in such litigation is merely a matter of conjecture.

These conditions certainly warrant the committee in recommending that the council reach a satisfactory agreement between the city and the companies.

The fact should not be lost sight of that the city is now acting by virtue of the authority given under the recent constitutional amendment. As is well known, Judge Mack has already decided that the law under which we are now acting is illegal; we have confidence that the supreme court of this State will confirm the legality of the constitutional amendment. However, this question should be taken into consideration as an argument urging a settlement with the companies at the present time.

In accordance with the views expressed in this report an ordinance is here presented, fixing 85 cents as a reasonable price to be charged for gas supplied to the people of Chicago, and providing for the acceptance of the ordinance by the various companies in order that the arrangements agreed upon in committee may become immediately effective between the city, the people, and the companies.

At the meeting of the committee at which the representatives of the company agreed to accept the conditions of the ordinance herein reported a motion was made and carried to the effect that if the proposed ordinance shall be passed on or before February 15 that the rate for gas fixed in the same, 85 cents per thousand feet, shall go into effect from February 1, and all consumers shall secure the benefit of such reduced price from that date.

Mr. Meagher, after the adoption of said motion, stated that he would recommend to his company that such rate be put into effect from February 1 in case of the passage of the ordinance by the date above suggested.

Your committee recommends the passage of the accompanying ordinances for the following reasons:

1. The reduction in the price of gas to 85 cents means, on the basis of the present consumption, a saving to the people of \$1,800,000 per year, or a total of \$9,000,000 for five years. Assuming that the natural increase in the consumption of gas will be the same for the ensuing five years that it has been for the last five years, the saving to the people will be approximately \$11,000,000.

2. Your committee believes that the people desire immediate relief through a reduced price in gas instead of possible indefinite relief to be brought about after years of expensive litigation.

3. Your committee has made a careful, thorough, and complete investigation of the subject, and it believes that the price reported to be established is one which the city can successfully defend in the courts, if necessary.

4. Your committee believes that the price recommended is the lowest possible price which will be accepted by the companies, thus avoiding further litigation.

5. Your committee further believes that 85 cents, in view of all the information which it has been able to secure, is a just, reasonable, and conservative price—fair to the people, fair to the city, and fair to the companies.

Your committee therefore recommends the passage of the accompanying ordinances.

Very respectfully submitted.

LINN H. YOUNG,
*Chairman Committee on Gas, Oil, and Electric Light,
City of Chicago.*

JANUARY 29, 1906.

EXHIBIT A.

THE PEOPLE'S GASLIGHT AND COKE COMPANY, CHICAGO, ILL.

NEW YORK, January 22, 1906.

Hon. LINN H. YOUNG, .

*Chairman of the Committee on Gas, Oil, and Electric Light,
of the Common Council of the City of Chicago.*

DEAR SIR: In accordance with your instructions we have made an examination of the accounts of the People's Gaslight and Coke Company, of Chicago, and compared the statement submitted by them as purporting to be the cost of manufacturing and distributing illuminating gas in the city of Chicago in the year 1904, with the relative vouchers and the manufacturing accounts in their ledgers. This statement was classified under several headings. We have eliminated from each heading such items (if any) as were in our opinion erroneously charged therein. The result of our examination is summarized in the following figures:

	As stated by People's Gas- light and Coke Company.	As revised by Marwick, Mit- chell & Co.	Difference.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Cost of manufacturing.....	31. 8193	28. 2204	3. 5989
Cost of distributing (including renewals).....	21. 7101	17. 2344	4. 4757
	53. 5294	45. 4548	8. 0746

We should have been accorded an opportunity of more fully examining several of the distributing and other accounts in the ledgers that bear directly on this investigation, but this was denied us. Had we had access to these accounts the cost of manufacturing and distributing might have been somewhat further modified.

It appears right that we should state that the figures submitted by the People's Gas-light and Coke Company include charges for renewals which, we were informed, were considered adequate to maintain the property at a fair operating standard of efficiency. These renewal charges were accepted by us in our revision of their figures. No allowance is, however, included in either statement for that wear and tear which is generally conceded to occur in excess of that which is covered by renewals.

Yours, truly,

MARWICK, MITCHELL & Co.,
Chartered Accountants.

CHICAGO, January 26, 1906.

HON. LINN H. YOUNG,

Chairman of the Committee on Gas, Oil, and
Electric Light of the Common Council, Chicago.

DEAR SIR: Replying to your communication of even date, I wish to advise you that there is 6.0043 cents per thousand feet included in the figures for renewals and repairs in the year 1904, and included in the figures in the distribution of gas, as shown by the People's Gas Light and Coke Company and our report.

Yours, truly,

MARWICK, MITCHELL & Co.,
Chartered Accountants.

EXHIBIT B.

CITY OF CLEVELAND, January 15, 1906.

MR. LINN H. YOUNG,

Alderman, 151 Wabash Avenue, Chicago, Ill.

DEAR SIR: You desired to have me send you my conclusions relative to the Chicago gas case. I had expected that you or some one else would send me the testimony taken after my own, in order that I might be able to comment upon the same in my letter to you. I am still prepared to refer to such data if you care to send it. Meantime I will merely summarize the conclusions which I have arrived at up to date:

	Cents.
Manufacturing cost, based on cost of the Ogden company, plus 1.5 cents for the difference in candlepower claimed by the People's Gas Company.	26.36
Distribution cost of People's company as reported	21.71
Total cost in burner	48.07
Additional allowance for depreciation	3.89
Total	51.96
Profits at 6 per cent on \$3.20, estimated cost of duplication	19.20
Total	71.16

The cost of the Ogden company would be 1.5 cents less on account of the lower candlepower, but 1.1 cents greater on account of the greater cost of distribution claimed by that company, or a net difference of 0.4 cent. This makes a net cost of practically 71 cents in the case of each company.

This allows for renewals and repairs about 10 cents in the case of the People's company, and possibly 2 or 3 cents less in the case of the Ogden company. The New York Consolidated Gas Company produces about one-fourth of the gas which it makes in the form of coal gas, and therefore requires more extensive repairs. Nevertheless, its entire expenditure since 1884 on all repairs and renewals has only been 10.89 cents per thousand feet of gas sold.

For meeting extraordinary depreciation, however, I have just computed in the New York case that a further allowance of 3 cents would be ample, and I think it would be on the safe side, although hardly necessary, to concede in Chicago also 3 cents, making a total cost of about 74 cents in the case of each company on the basis of existing sales. It must be remembered that exclusively

water-gas plants, like that of Chicago, do not require as large repairs and renewals as do the mixed coal and water gas plants of New York.

Further computations since I was in Chicago, covering the experiences of every plant which has reduced the price of gas in Massachusetts during the past ten years, have shown that an average reduction of 12 per cent in the price has been accompanied by such an increase of sales as to make absolutely no decrease, but even to produce an actual slight increase in the profit. For this, as well as for other reasons and facts of a similar nature, I refer that if your committee is convinced that the gas company could stand a price of 85 cents on the basis of the present sales you will be entirely safe in fixing a price of 75 cents, for the sales would increase so rapidly that within two years the company would be making as much at 75 cents as it would have made last year at 85 cents.

Your committee asked me if the year 1904 would be fairly typical of the cost of gas manufacture. I may have replied in the affirmative, but I should add that the price of materials has fallen since 1904 in New York and Boston so that the cost, in those cities, is about 5 cents less now than in 1904, and I should expect to find some decrease in 1905 in Chicago.

Although I have not seen the testimony, I have been informed that Mr. Alexander C. Humphreys has testified before your committee that I did not quote him correctly in the Holyoke case as to depreciation. I wish to state that the Holyoke company was a mixed coal and water gas company. At the time of my testimony I had in mind that it was a coal gas company only, but I have since looked up the returns to the Massachusetts gas commission and find that at the time of Mr. Humphreys's testimony two-thirds of the gas made was coal gas and one-third water gas. Such a plant would, of course, have a much larger repair and depreciation account than a pure water-gas plant like that in Chicago.

Now, Mr. Humphreys in the Holyoke case, in volume 2, pages 242-243, and 264-265, stated very positively that the Holyoke company, in the year 1897-98, had spent 6.11 cents for repairs of the works per thousand feet of gas manufactured. He then testified:

"Now, 4 cents would be enough for that by the ordinary practice. In the same way, coming to distribution, the repairs, meters, services, and mains, and current renewals of those, come in at 5.16 cents. Now, 2½ cents will, I think, be generally considered as a fair and perhaps full amount for repairs in that department. In other words, there seems then to be an excess of 5.77 cents per thousand; which would amount to \$3,050. That is, 2.11 cents on 68,000,000 feet made and 2.5 cents on 60,000,000 feet sold; and I consider that ample to cover depreciation and final renewals.

"Q. That is, for every thousand feet, according to your allotment, there is an expenditure, apparently, for repairs and renewals, of something like 5 cents in excess of what should be so spent?—A. Of what is ample to take care of a plant, yes.

"Q. And you say that that excess amply cares for the question of depreciation?—A. I do."

Again, on page 264, he repeats the calculation.

From Mr. Humphreys's schedules on page 210 of the Holyoke case it appears that the repairs and current renewals at the works were \$4,167.73 and on the distribution system \$3,088.23, or a total of \$7,255.96, which distributed over the 60,000,000 feet of sales, is equal to 12.09 cents per thousand feet, and this was declared by Mr. Humphreys in that case to be amply sufficient for both repairs and depreciation in the plant, which, it will be remembered, is largely coal gas. As quoted above, he stated that for ordinary repairs and renewals at the works 4 cents would be enough "by the ordinary practice" and 2.5 cents for repairs and renewals on the distribution system would be "generally considered" as fair.

Mr. Humphreys certainly did not seem in this testimony to refer to any peculiarity in the Holyoke case which differentiated it from other plants, and there was nothing in the evidence to show that it would not be subject to the ordinary depreciation. His computation, which amounts to 12.09 cents for repairs, renewals, and depreciation, would have been only 11.3 cents if the leakage had been 6 per cent, so that the same depreciation and renewal and repair charge could have been distributed over 64,000,000 feet of gas instead of 60,000,000.

In my own report above and in my testimony I used 10.16 cents as a reasonable basis for repairs, renewals, and depreciation in a water-gas plant, but have

supplemented this in my present statement by 3 cents, in order to be surely on the conservative side. It still leaves the reasonable price below 75 cents, while allowing over 13 cents in the case of the People's Gas Company and over 10 cents in the case of the Ogden company for repairs, renewals, and depreciation. The experiences of both the Boston and the New York companies and the testimony not only of Mr. Humphreys, but of several other gas engineers in the Holyoke case, confirm the position that 11 cents to 13 cents is a liberal allowance in a water-gas plant.

In my Montreal report I recommended 87 cents because, with the prices prevailing in that city for coal, oil, and so forth, I believe it would cost in the holder 41.25 cents per thousand feet of gas sold, as compared with a net cost in Chicago in the Ogden company of 24.86 cents, while in the People's company it ought not to exceed 26.36 cents. This difference of about 15 cents per thousand feet of cost in the holder will more than explain the entire difference in the price recommended between Montreal—87 cents—and Chicago—75 cents. The cost of distribution and profit would have been substantially the same in my computations for Montreal and Chicago had it not been that the taxes were about 2 cents higher in the Canadian city.

Very respectfully, yours,

EDWARD W. BEMIS.

EXHIBIT "C."

THE LACLEDE GAS LIGHT COMPANY.

St. Louis, January 3, 1906.

MR. LINN H. YOUNG.

Chairman, 151 Wabash Avenue, Chicago, Ill.

DEAR SIR: I herewith submit my report and recommendations as to the reasonable price to be fixed by the city of Chicago for gas, to be supplied by the gas companies of Chicago to the people of the city of Chicago.

The People's Gas Light and Coke Company submit figures of cost for the year 1904, per 1,000 cubic feet of gas sold, as follows:

	Cents.
Manufacture	31.82
Distribution	21.71
Total	53.53

The Ogden Gas Company reported cost a little less than 50 cents per 1,000 cubic feet of gas sold.

The Chicago gas companies have at present works only for the manufacture of water gas, and although coal gas might possibly be made cheaper at present, it would have to be more than 8 cents per 1,000 cubic feet cheaper to warrant the investment of the additional capital, and it is questionable whether such a result could be obtained.

I believe fair figures of cost for water gas under conditions existing in Chicago for the year 1904, presuming the conditions were such as to require only normal expenditures for repairs and maintenance, are, per 1,000 cubic feet of gas sold, as follows:

	Cents.
Manufacture	30.00
Distribution	23.75
Total	53.75

The above figures for distribution include \$0.0125, which in the People's figures are included in manufacture.

I give these figures with confidence, because the cost of gas sold by the Laclede Gas Light Company, of St. Louis, were higher for each of the years 1904 and 1905, notwithstanding the Laclede Gas Light Company is manufacturing both coal and water gas.

The cost figures of the Ogden Gas Company were less, I believe, because the Ogden Gas Company is selling gas at 90 cents per 1,000 cubic feet and finds it hard to meet its interest charges, and is adopting strenuous means to reduce its cost to the lowest possible figure for the time being, which means that its costs are below normal for maintenance, and eventually such costs must be higher unless good fortune overtakes the company in reduced cost of material.

If a gas company is to fix its selling price close to the cost price, including its interest charges at only normal rates, an allowance must surely be made to cover contingencies likely at any time and surely at some time to arise, such contingencies being as follows:

Depreciation of plant beyond the point where such plant is maintained from year to year.

Replacement of plant owing to its being entirely worn out or owing to extraordinary changes incident to improvement in apparatus, sometimes necessitating replacement of buildings.

Extraordinary changes in main system owing to the city growing beyond the foundation of the system installed.

Extensive damage owing to fire or explosion, not only in the gas works, but in the streets, consumers' houses, etc.—for illustration, such damages as occurred in Boston about five years since.

To cover this item, which we will name a reserve, I consider 10 cents per thousand cubic feet as small an amount as can with safety to the corporation's interest be laid aside for such contingencies.

The People's Gas Light and Coke Company reports \$0.3492 per thousand cubic feet sold as necessary to pay its interest on bonds and 6 per cent dividends on its stock. Therefore, in determining the price to be fixed for gas in Chicago I add these two amounts to the cost figures heretofore given and obtain the following per 1,000 cubic feet of gas sold:

	Cents.
Cost	53. 75
Reserve	10. 00
Interest and dividends.....	34. 82
Total.....	98. 67

But as the price to be fixed would naturally be for a term of years, and as the interest and dividend charge per 1,000 cubic feet of gas sold will grow less as the consumption increases, I would give as a reasonable figure to be fixed as the selling price of gas 95 cents per 1,000 cubic feet of gas sold. The People's Gas Light and Coke Company has offered to reduce the price to 90 cents per 1,000 cubic feet of gas as a basis of agreement with the city. This means that in order to avoid any controversy with the city the company is willing to temporarily lay aside less than 10 cents per 1,000 cubic feet as reserve, or pay less than 6 per cent dividends upon the stock, or both.

To my mind it is entirely proper for the city to accept the proposition of the People's Gas Light and Coke Company fixing the price at 90 cents per 1,000 cubic feet, but I believe greater justice would be shown to all the people of Chicago if, instead of the People's Gas Light and Coke Company making a price of 90 cents, it would agree to make the price 80 cents per 1,000 cubic feet of gas, with the provision that the first 1,000 cubic feet passing through any meter each month should be charged at the rate of \$1 per 1,000 cubic feet.

This plan makes the price the same to the consumer using 2,000 cubic feet monthly, reduces the price to the consumer using more than 2,000 cubic feet, and makes it gradually more for consumers using less than 2,000 feet monthly.

Consumers of 1,000 cubic feet monthly and less are considered by the gas companies of to-day that have given this matter greatest study as unprofitable consumers and are only desired by companies to the extent that they may be educated to become larger consumers. By this statement I mean to say that if gas companies had no consumers using more than 1,000 cubic feet of gas monthly each, they could not live and sell gas at \$1 per thousand feet.

Therefore, in reducing the price below \$1, the consumer using 1,000 cubic feet of gas and less monthly is not paying his just share of returns upon the capital invested, and it is only just to those consumers that are using more than 1,000 cubic feet of gas monthly that the smaller consumer should pay his just share of interest, and give larger consumers the benefit to some extent of the profit they are turning into the company.

I sincerely hope that my efforts have been a help to you in obtaining knowledge regarding the facts governing the supply of gas, its costs, and profits.

Respectfully submitted.

E. G. COWDEY.

EXHIBIT D.

BANK OF COMMERCE BUILDING,
New York, January 12, 1906.

LENN H. YOUNG, Esq.,

*Chairman of Committee on Gas, Oil, and Electric Light of the
City Council, 151 Wabash Avenue, Chicago, Ill.*

DEAR SIR: Referring to my testimony delivered before your committee on the 8th instant, and to your request that I should cover, in writing, my recommendations as to a price for illuminating gas in Chicago fair to the consumer and fair to the seller, I submit the following:

This fair price should cover the final cost of the gas up to the point of consumption and a reasonable profit on the capital reasonably invested to insure the best possible service to the public, all things considered.

In arriving at the final cost, we must include not only all current expenditures, but also such accrued and accruing liabilities on account of operating cost that are indicated by intelligent opinion based upon practical experience in the gas business.

In arriving at an opinion as to a reasonable rate of profit upon a reasonable amount of capital, we should not be controlled nor even too much influenced by general data or averages; we should consider the case in mind and try to include all the local conditions influencing for and against a low structural cost and capitalization.

As I explained to the committee, I have not recently made a detailed examination of Chicago gas conditions, but I have in the past been familiar with these conditions. While, therefore, I can not claim to be in a position to decide to a fraction of a cent the proper amount of each of the many items entering into the cost of manufacture and cost of distribution (including in the latter, in accordance with the classification of accounts you have been considering, all items of cost not covered under the general heading of manufacture). I do feel competent, by reason of my wide experience and my past special experience with Chicago conditions, to advise you with a sufficient degree of assurance.

A question of vital importance is always involved in that of depreciation. As I endeavored to make clear to the committee, depreciation is a factor which is always present in a manufacturing business. This depreciation is unceasingly acting to reduce the value of such assets as are subject to wear and tear and exhaustion. Such depreciation, if not fully provided for out of current earnings, must to that extent reduce the value of assets.

This depreciation does not manifest itself uniformly from year to year. Repairs and current small renewals can be currently met and charged to an account called "Repairs and current renewals," and so carried into profit and loss account for the year; but there will be each year an accrued liability for the depreciation which has taken place, but which has not manifested itself in an immediate breakdown or exhaustion of plant. In other words, although the several parts of plant be kept up to as full a condition of efficiency as is possible through minor repairs and renewals, there will come a time when such parts will have to be renewed as a whole. Here it is to be carefully borne in mind that the parts of plant which have the longest life are, as a rule, those which have cost the most, and hence can not be paid for out of any one year's earnings.

As I explained, I always prefer to consider the cost of depreciation as a whole. It is apparent that the cost of that portion of depreciation which is covered by expenditures currently made for repairs and current (minor) renewals is determined for us each year by the facts as they develop; but that portion which has accrued and which will continue to accrue as a liability as to each part of the plant to the end of its life can only be estimated. This estimate must be determined by expert judgment, based upon experience, and here no general rules can be blindly followed, for each case has to be considered in connection with its controlling conditions.

The statement has sometimes been made that the charges to "Repairs and current renewals" over, say, a period of twenty years, can be taken as representing the average cost of depreciation. This is not so if any of the parts of the plant have a longer life than twenty years, as is the case in a gas property.

From a consideration of the conditions to be met in Chicago, I estimate that the total cost of depreciation will here amount to 15 cents per 1,000 feet of

sales. Such portion of this as is not covered by the expenditures charged yearly to "Repairs and current renewals" should be taken out of income and set aside in one way or another to meet the accrued and accruing depreciation as explained.

Furthermore, there are contingencies liable to be met which should be provided for, such as increases in cost of materials and labor; extraordinary renewals (outside of ordinary wear and tear); outside damage to life and property occasioned by explosions or fires, strikes, electrolytic damage, etc. Especially must reference be made to the last named item—electrolysis—for it is well known that here is a destructive agent silently and unobtrusively at work which, in Chicago, has already occasioned great damage and expense.

I was informed in the committee that the People's Company stated its cost, in round numbers, to be:

	Cents.
Manufacturing -----	31
Distribution -----	22

Total cash cost per 1,000 for 28-candlepower gas ----- 53

not including anything for depreciation except actual current expenditures, and therefore without allowance for accruing depreciation.

In view of the Chicago conditions, as I understand them, this result is satisfactory, and indicates efficient management.

Included in this cost there is said to be 6.9 cents for current repairs and renewals. As I estimate the total for depreciation at 15 cents per 1,000, I should add for accruing depreciation $15 - 6.9 = 8.1$ cents per 1,000, but as there appeared to be some question whether there might not be some cash repairs in addition to the 6.9 cents, I will assume that 10 cents has been included for repairs and current renewals, and add for accruing depreciation only 5 cents.

	Cents.
Total cost independent of contingencies -----	58
Reserve for contingencies, as explained -----	5

63

To arrive at a fair selling price, we must now add such an amount per 1,000 feet of gas sold as will pay a fair return on capital invested, bearing in mind the nature of the business, and we must also determine what is a fair capital on which to allow this return.

These two questions of amount of capital and rate of return are necessarily tied together. Professor Bemis, you inform me, has claimed that the company should be allowed to pay interest only on the structural value of plant. If such a policy were to be enforced, industrial enterprise would be checked and perhaps killed. It costs money to build up a business as well as to build the plant, and working capital is required to carry on a business. The capital legitimately invested in establishing and carrying on the business is entitled to a return as much as the capital invested in plant.

I am further informed that Professor Bemis has stated that, in his opinion, \$3.20 per 1,000 feet of annual sales can be taken as representing the structural value of the plant of the People's Company. I can not see how Professor Bemis can have accurately determined this figure, considering his limited opportunities and limited practical experience. To make a reliable appraisal of the property would take many weeks of work by a large force of competent experts.

I should think that \$4 was likely to be nearer to the structural value per 1,000 feet of annual sales.

Mr. Cowdery, who is acknowledged by those in the business to be unusually well qualified as an expert in gas values and who has been familiar with the Chicago gas plants for years, gives, I was told, as his estimate of capital value, including structural value and the cost of building up and carrying on the business, \$5 per 1,000 feet of annual sales.

But let us for the moment consider Professor Bemis's figure of \$3.20. On an estimate of such a character, professedly covering only present structural value, 10 per cent is a reasonable profit to allow. Even in Great Britain, where the companies enjoy a virtual monopoly and assured dividend under parliamentary control, original capital was generally allowed a 10 per cent return, and the reduced return to the "auction clauses" affects only the new capital subsequently brought in to expand the business already established. Furthermore, in London, the operation of the "sliding scale," usually increases the income from the original 10 per cent capital to over 13 per cent.

Likewise, in Massachusetts, where the control of the commissioners insures a virtual monopoly to existing gas companies, many of these companies pay dividends as high as 10 per cent.

	Cents.
I have shown the probable cost, plus reserve for contingencies, to be.....	63
10 per cent on \$3.20.....	32

Selling price.....	95
--------------------	----

Take my suggestion of structural value and allow 8 per cent, and we have.....	63
8 per cent \$4.....	32

95

Suppose we take Mr. Cowdery's more liberal figure of \$5; then 7 per cent might be taken as fair, and we have.....	63
7 per cent on \$5.....	35

98

I was informed by your committee that the total capitalization of the company is something over \$68,000,000, and that the amount of annual sales are supposed to be about eleven million thousand feet. This would show a capitalization of about \$8.20 per thousand. On such a capitalization it would be fair to allow an average of 5 per cent.

	Cents.
Then we have.....	63
5 per cent on \$6.20.....	31

94

I have especially introduced these several calculations to illustrate my contention that the determination of capital to be allowed and return on capital should be interdependent.

If a concern is entitled to a liberal return on structural value in connection with a hazardous business, then no injury is done to the buyer if the amount of that return is spread over a larger amount of capital through a lower rate.

In this connection I was informed that the Chicago gas companies have offered to reduce their price for gas from \$1 to 90 cents per thousand.

Let me now refer, as requested, to three other points. It is stated that the Peoples Gas Company has published statements showing that for some years past it has paid its regular 6 per cent dividend and laid by a considerable surplus.

This word "surplus" is unfortunately too often loosely used in American accounting. The word should properly indicate profits over and above dividends paid. But no such surplus can be accumulated unless accrued depreciation is first provided for; and all of the statements made at the hearing indicated that the gas company had not been thus providing for this real item of loss.

Companies may provide for depreciation by means of a so-called "surplus" fund; but surplus is in that case a misnomer, for there is no surplus until all losses, paid, payable, and accruing, have been included in the year's profit and loss account.

This brings me to the second point:

A competent firm of accountants is engaged in auditing the Peoples Company's books to determine whether that company's statement of costs is correct. To do the work thoroughly will take a long time, and not only the experience and skill of the accountant is required, but also the advice of one skilled in the gas business to discriminate between charges to operating cost through "repairs and current renewals account" and construction and other asset accounts. A thoroughly competent discrimination in this respect is necessary to determine the right figure of cost at the burner, not to speak of separating this cost accurately between manufacturing cost and distribution cost.

The third point is the question: To what extent will a decrease in price lead to increase in sales, and if the sales are largely increased will that materially decrease cost?

Undoubtedly the reduction in price will somewhat stimulate sales. But we can not blindly draw conclusions from the effects produced by the heavy reductions made in the past. The selling of gas has been so carefully and intelligently pushed during late years in connection with reduction to the moderate price of \$1 that there is not a wide margin remaining.

With regard to the probable effect of increased sales upon cost, if the company is now selling 11,000,000,000 cubic feet per year, there is little if any margin left for

reduction in cost, either of manufacture or distribution, owing to increased sales. For with such enormous sales manufacturing units of the largest economical magnitude are already employed and multiplied and the distribution system is already at recurring periods reaching its economical capacity for efficient service, necessitating periodical enlargement. Under these conditions, if an abnormal increase in output followed a reduction in price, it might even cause a temporary increase in the cost of gas until the new plant was economically loaded.

In general, it may be safely assumed that the increase in future sales in Chicago will have but little effect upon the cost of gas.

I have not gone into the question of how the average price of 90 cents per thousand offered by the companies might be best applied—whether as a flat uniform rate of 90 cents or a variable rate dependent upon each consumer's requirements. This question, I was informed, was introduced to your attention by Mr. Cowdery.

Undoubtedly it is right that each consumer should pay his proper share of the cost and the small consumer does not pay his share under a uniform rate.

But to determine what system of differential prices would yield a uniform profit on each 1,000 cubic feet sold and at the same time produce an average of 90 cents per thousand for the entire output would require an exhaustive examination of Chicago conditions. Furthermore, the yearly change in these conditions would doubtless materially alter the average price produced by any fixed scale of prices.

In my opinion it is advisable, at the present time to agree upon a reasonable average price and leave open the question of differential rates to insure equitable returns from all classes of consumers.

Finally, from the facts given to me in the hearing and now briefly recapitulated, I do not hesitate to say that the offer of the Chicago gas companies to sell their gas at an average of 90 cents per thousand is a fair one and should be accepted by the city.

Yours, very truly,

ALEX C. HUMPHREYS.

EXHIBIT E.

Statement showing amount of stocks and bonds issued by the People's Company, furnished by Mr. Meagher.

BONDS.

1. First mortgage 6 per cent bonds of the People's Gas Light and Coke Company, dated November 9, 1874, and due November 1, 1904	\$2, 100, 000
2. Second mortgage 6 per cent bonds of the People's Gas Light and Coke Company, dated December 5, 1874, and due December 1, 1904	2, 500, 000
3. First consolidated 6 per cent bonds of the People's Gas Light and Coke Company, dated April 1, 1893, and due April 1, 1943	4, 900, 000
4. First mortgage 5 per cent bonds of the Chicago Gas Light and Coke Company, dated July 1, 1887, and due July 1, 1937	10, 000, 000
5. First mortgage 6 per cent bonds of the Equitable Gas Light and Fuel Company of Chicago, dated July 1, 1885, and due July 1, 1905	2, 000, 000
6. First mortgage 5 per cent bonds of the Consumers' Gas Company, dated December 1, 1886, and due December 1, 1936	4, 246, 000
7. First mortgage 7 per cent bonds of the Illinois Light, Heat, and Power Company, dated November 18, 1885, and due November 1, 1915	500, 000
8. First mortgage 6 per cent bonds of the Lake Gas Company, dated July 1, 1885, and due July 1, 1915	300, 000
9. First mortgage 5 per cent bonds of the Chicago Economic Fuel Gas Company, dated January 2, 1893, and due January 1, 1916	2, 500, 000
10. Hyde Park Gas Company bonds	200, 000
11. Mutual Fuel Gas Company bonds	5, 000, 000
12. Calumet Gas Company bonds	250, 000
December 31, 1904	600, 000
Total	35, 096, 000

STOCKS.

Issued August 2, 1897	25, 000, 000
Issued December 10, 1899	3, 750, 000
Issued September 10, 1901	4, 219, 100
Total	32, 969, 100

EXHIBIT F.

Statement of the cost of gas sold by the Consolidated Gas Company of New York for the year 1904.

A.—COST OF MANUFACTURE.

Total amount produced.....cubic feet.. 8, 984, 950, 000

	Amount.	Average cost per 1,000 cubic feet.
1. Gas production:		
Coal (including labor and cartage, less residuals)	\$376, 306. 90	
Coke (including labor and cartage)	90, 491. 26	
Fuel, oil, and labor	6, 112. 06	
Gas oil	1, 431, 070. 90	
Lime	4, 909. 65	
Oxide	14, 020. 84	
Water	26, 786. 80	
Oil waste, etc.	5, 793. 79	
Cartage	19, 717. 09	
Labor	420, 128. 68	
Total (net) for material and labor in production	2, 895, 337. 97	\$0. 3222
2. Repairs:		
Apparatus	161, 151. 49	
Buildings	25, 089. 62	
Tools and implements	17, 422. 45	
Total repairs	203, 663. 76	. 0227
3. Expense (?)	72, 331. 81	. 0080
4. Distribution	35, 294. 57	. 0039
5. Storage station expenses	51, 896. 89	. 0058
6. Replacements (depreciation)	268, 686. 22	. 0299
7. Experiments	1, 698. 33	. 0002
Total cost of manufacture	3, 528, 901. 55	+ . 3927
Cost of gas manufactured by other companies, 4,928,474,990 cubic feet	1, 671, 650. 17	+ . 3361
Total amount of gas manufactured and purchased to be distributed, 13,913,424,990 cubic feet	5, 200, 551. 72	+ . 3737

B.—COST OF DISTRIBUTION.

1. Expense	\$369, 564. 64	
2. Distribution	297, 642. 12	
3. Repairs to gas stoves	44, 202. 65	
Mains	123, 392. 80	
Services	67, 518. 18	
Meters	144, 307. 87	
Buildings	16, 576. 15	
Tools and implements	12, 204. 99	
Street lamps	2, 962. 88	
4. Depreciation in value of materials and supplies	3, 921. 70	
5. Interest on consumers' deposits	32, 462. 42	
6. Bad and doubtful debts	107, 736. 01	
7. Replacements of mains, meters, services, etc	181, 741. 57	
Total cost of distribution	1, 611, 263. 18	\$0. 1156+

C.—GENERAL EXPENSES.

1. General office	\$248, 139. 41	
2. Vacations and sickness	8, 388. 40	
3. Automobiles	3, 109. 65	
4. Advertising and legal	59, 999. 12	
5. Water rates	136. 00	
6. Real estate rents	44, 551. 06	
7. Gas Company's Mutual Aid Society	5, 962. 37	
8. Superannuation	13, 723. 00	
9. Insurance	55, 663. 74	
10. Taxes	779, 306. 33	
11. Replacement of horses, wagons, and harness	5, 908. 00	
Total general expense	1, 224, 467. 07	\$0. 098+
Grand total of all expenses	8, 036, 281. 97	. 5775+

EXHIBIT G.

Capitalization of gas works in 30 cities, per mile of mains and per 1,000 cubic feet of sales.

[From Brown's Gas Directory for 1905. Compiled by Hugo S. Grosser, city statistician.]

City.	Capitulation.		Candle power.	Net rate.	Annual output in 1,000 feet.	Process of manufacture.
	Per mile of mains.	Per 1,000 cubic feet sales.				
New York:						
Consolidated	\$45,655.00	\$3.70	24	\$1.00	22,000,000	Coal and Lowe.
Brooklyn Union	40,640.00	4.53	24	1.00	7,300,000	Springer.
New Amsterdam	213,180.00	17.06	25	1.00	2,500,000	Lowe.
St. Louis:						
La Ciede	43,333.00	7.64	20	1.00	-----	-----
				F-80-60	3,400,000	Lowe and Coal.
Philadelphia:						
Suburban	27,027.00	16.00	20	1.15	250,000	Lowe and coke oven.
Baltimore	39,877.00	8.65	20	.85	2,350,000	Lowe and coal.
Cleveland	8,421.00	2.60	19	.75	1,500,000	Coal.
Buffalo	38,888.88	23.57	18	1.00	620,000	Do.
Pittsburg	30,215.00	17.60	20	1.00	625,000	Lowe and coal.
Milwaukee	19,808.00	4.01	18	1-.80	-----	-----
				80-60	1,800,000	Lowe and coke.
Detroit	25,706.00	6.05	20	.90	-----	-----
				F-.80	1,870,000	Lowe and coal.
Washington		3.41	25	1.00	1,700,289	Coal.
Louisville	17,647.00	6.85	18	1.00	-----	-----
				F-.75	525,000	Coal and water.
Indianapolis	16,665.00	9.68	19	.90	575,000	Coal and Lowe.
Providence	10,833.33	3.20	20	1.05	982,000	Do.
Kansas City	30,629.00	8.09	24	1.00	1,643,610	Lowe and coal.
St. Paul	31,342.00	9.73	22	1.10	573,000	Coal and Lowe.
Toledo	5,190.00	4.15	18	.95	-----	-----
				F-.70	280,000	Do.
Columbus	26,295.00	45.30	18	1.00	65,000	Coal.
Syracuse	36,258.00	11.54	19	1.00	377,000	Lowe.
Omaha	33,158.00	13.54	25	1.35	419,000	Do.
St. Joseph	35,000.00	7.00	20	1.00	250,000	Coal and Lowe.
Portland, Oreg	14,314.00	8.69	18	1.25	230,000	Lowe.
Albany	25,000.00	6.25	26	1.00	400,000	Springer.
Grand Rapids	14,833.33	2.66	18	.90	606,000	Coal and Lowe.
Troy, N. Y.	30,000.00	7.60	25	1.30	250,000	Shields.
East St. Louis	20,833.00	12.50	-----	1.10	80,000	Coal.
Harrisburg	39,215.00	16.00	24	1.25	126,000	Lowe.
City plants:						
Richmond, Va.	11,764.00	2.66	25	1.00	373,000	Coal and Lowe.
Holyoke, Mass.	18,400.00	6.12	18.5	1.20	115,000	Do.
Duluth, Minn.	10,063.00	4.92	17	.75	98,000	Lowe.
Chicago:						
Peoples	35,060.00	6.18	24	1.00	11,000,000	Do.

EXHIBIT I

Statement of operations and balance sheet of the People's Company, covering the period from 1897 to 1904, inclusive, taken from the Investors' Manual of 1905.

OPERATIONS.

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Gross receipts.....	\$7,125,439	\$7,265,526	\$8,096,319	\$9,000,337	\$9,663,746	\$11,058,413	\$11,884,800	\$12,014,085
Operating expenses.....	\$3,688,976	\$3,706,301	\$3,813,037	\$4,447,766	\$4,792,442	\$5,913,211	\$6,440,262	\$6,335,821
Net.....	\$3,436,463	\$3,470,225	\$4,283,282	\$4,552,570	\$4,871,304	\$5,145,202	\$5,444,538	\$5,678,264
Bond interest.....	\$1,842,300	\$1,842,300	\$1,857,300	\$1,857,300	\$1,857,300	\$1,857,300	\$1,857,300	\$1,853,550
Charged off ^a			\$464,409	\$884,175	\$611,836	\$630,586	\$656,431	\$690,569
Net for stock.....	\$1,594,163	\$1,627,925	\$1,961,572	\$2,201,075	\$2,402,168	\$2,657,316	\$2,900,707	\$3,131,144
Per cent on stock.....	6.37	6.51	6.84	7.68	7.29	8.06	8.80	9.51
Dividend, 6 per cent ^b			\$1,720,128	\$1,720,128	\$1,794,632	\$1,978,146	\$1,978,146	\$1,978,146
Surplus for year.....			\$241,444	\$480,947	\$607,536	\$679,170	\$922,561	\$1,155,998
Sales manufactured gas (cubic feet).....			6,879,419,965	7,425,979,963	1,797	1,867	1,872	1,940
Miles street mains.....	5,705,124,208	6,114,557,380	1,594	1,799	323,059	342,150	347,760	359,327
Number meters.....	199,473	230,293	274,604	300,077	333,771	342,150	347,760	359,327
Number gas stores.....			47,639	66,845	83,771	105,844	126,181	145,222
Public lamps.....	32,425	28,023	26,121	24,980	24,911	25,000	24,948	24,974
Gas arc lamps.....							28,477	33,337

^a For street mains abandoned, renewals, repairs, and bad debts, not stated separately prior to 1899.

^b Amount not stated in reports prior to 1899, but 6 per cent was paid each year.

Balance sheet, December 31.

ASSETS.

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Plants, franchises, etc.	\$80,181,550	\$61,792,130	\$65,420,560	\$66,421,317	\$69,009,442	\$70,386,902	\$71,145,318	\$72,188,763
Mortgages	51,494	1,085,914	1,477,657	1,470,489	578,179	782,882	1,000,476	631,902
Securities	201,577	1,471,577	1,470,935	1,473,965	2,193,666	2,246,682	2,243,661	2,243,662
Accounts receivable	197,507	314,746	300,786	186,174	319,439	329,861	444,806	433,126
Deposits for bond coupons	877,212	345,446	354,364	327,174	331,331	330,808	346,680	348,304
Gas bill receivable	573,286	742,577	980,922	974,088	820,530	861,668	869,306	739,614
City of Chicago	236,820	46,577	140,422	12,666	48,602			
Cash	1,326,403	1,006,303	180,289	466,828	1,783,923	936,819	686,915	1,800,247
Central Trust Company								
Other bills receivable	100,000	1,972,586			100,300	104,227	99,227	68,242
	63,668,461	68,665,869	69,145,628	70,311,963	75,252,302	75,946,706	76,866,068	78,713,918

LIABILITIES.

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Capital stock	\$25,000,000	\$30,000,000	\$30,000,000	\$30,000,000	\$35,000,000	\$35,000,000	\$35,000,000	\$35,000,000
Bonds	34,246,000	34,246,000	34,496,000	34,496,000	34,496,000	34,496,000	34,496,000	35,096,000
Deposits for gas bills	301,574	120,189	77,819	69,069	72,724	84,716	102,238	131,188
Accounts payable	21,348	237,047	348,786	344,304	364,457	368,192	351,634	360,335
Coupons past due	348,575	356,645	355,990	354,230	363,205	352,173	346,540	350,260
Accrued bond interest	176,191	217,868	217,868	217,868	217,868	217,868	217,868	270,358
Profit and loss	3,274,791	3,406,129	3,646,574	4,180,621	4,746,067	5,427,227	6,349,788	7,506,767
Bills payable				700,000				
	63,668,461	68,665,869	69,145,628	70,311,963	75,252,302	75,946,706	76,866,068	78,713,918

EXHIBIT H.

[Compiled from United States Census Report of 1900, by Hugo S. Grosser, city statistician, Chicago, Ill.]

States.	Amount of gas sold in 1,000 cubic feet.	Total value.	Average per 1,000.	Total capitalization (bonds and stock).	Average capitalization per 1,000 cubic feet sold.	Total interest paid.	Interest per 1,000 cubic feet sold.	Total dividends paid.	Dividends per 1,000 feet sold.	Interest and dividends per 1,000 feet sold.	Structural value: Land, buildings, machinery, pumps, meters, etc.	Structural value per 1,000 feet sold.
1. United States.....	67,063,553	\$69,432,582	\$1.035	\$568,704,984	88.47	\$9,471,575	14.1	\$15,842,138	23.6	Cents. 37.7	\$488,327,178	\$7.23
2. Alabama.....	122,635	198,865	1.622	2,305,200	18.79	61,040	41.6	3,756	3	44.6	1,023,816	8.34
3. Arizona.....	7,080	17,080	2.412	65,500	9.25	.....	.....	.....	.....	.....	68,300	9.64
4. Arkansas.....	66,543	129,135	1.941	813,350	12.22	14,850	22.3	.....	.....	22.3	569,037	9.00
5. California.....	1,679,078	2,894,144	1.718	26,355,550	15.66	118,442	7	1,159,963	69.1	76.1	19,272,100	11.47
6. Colorado.....	346,248	439,460	1.269	1,949,000	5.62	37,811	10.9	8,407	2.4	13.3	1,686,386	4.78
7. Connecticut.....	1,047,838	1,262,653	1.205	7,349,850	7.01	77,480	7.4	284,043	27.1	34.5	6,819,744	6.80
8. D. Iaware.....	191,344	176,000	.920	961,000	3.61	40,000	20.9	70,700	36.9	57.8	667,467	3.48
9. District of Columbia.....	1,076,210	1,192,712	1.109	3,360,000	3.11	26,000	3.8	405,000	37.6	40.9	4,422,391	4.11
10. Florida.....	1,154,290	1,077,120	1.077	928,300	11.96	12,305	15.7	.....	15.7	15.7	1,006,491	12.90
11. Georgia.....	451,940	558,182	1.235	4,636,000	10.20	73,310	16.2	41,672	9.2	25.4	3,687,272	8.82
12. Illinois.....	9,392,071	8,478,773	.903	79,137,880	8.42	2,043,991	21.7	1,957,507	20.8	42.5	74,517,524	7.93
13. Indiana.....	764,135	8,875,247	1.145	8,263,533	10.85	226,853	28.5	90,930	11.9	41.4	7,455,053	9.75
14. Iowa.....	477,328	649,526	1.361	4,200,950	8.92	67,897	14.2	51,032	10.7	24.9	3,826,610	8.01
15. Kansas.....	173,812	280,588	1.672	1,783,450	12.61	38,083	21.9	21,9	14.7	36.6	1,273,396	7.32
16. Kentucky.....	447,362	574,877	1.266	5,569,732	10.51	40,891	9.1	196,407	43.9	53	4,184,962	9.35
17. Louisiana.....	204,503	428,005	2.086	3,977,000	19.44	5,730	2.8	187,500	91.6	94.4	1,544,575	7.50
18. Maine.....	165,064	246,861	1.466	1,446,100	8.75	22,858	13.8	40,877	24.7	38.5	1,232,217	7.46
19. Maryland.....	1,414,721	1,770,889	1.262	18,098,500	12.77	391,614	27.6	438,960	31	58.6	3,586,059	2.54
20. Massachusetts.....	4,673,442	5,356,301	1.146	18,519,791	3.96	90,414	1.9	1,449,546	21.9	32.9	27,154,675	5.81
21. Michigan.....	1,127,085	1,224,724	1.067	14,865,275	13.18	341,013	30.2	222,771	20.6	60.8	15,604,635	13.84
22. Minnesota.....	752,861	979,004	1.300	8,489,833	11.27	333,190	44.3	121,500	15.1	60.4	8,477,847	11.26
23. Mississippi.....	30,716	74,041	2.017	494,100	11.82	339,000	2.4	12,300	33.5	35.9	396,489	10.79
24. Missouri.....	2,005,744	2,526,418	1.262	32,134,000	12.33	758,042	20.1	388,723	14.9	44	30,000,760	11.61
25. Nebraska.....	331,369	462,185	1.454	6,690,000	19.97	108,105	31.7	103,500	31.2	62.9	6,798,896	20.61
26. Nevada.....	4,873	21,084	4.600	2,249,000	4.66	1,380	28.1	5,000	61.5	89.6	76,331	15.66

EXHIBIT H—Continued.

States.	Total salaries paid.	Average salary per em- ployee per year.	Average salary per 1,000 feet sold.	Total wages paid.	Average wages per em- ployee per year.	Average wages per 1,000 feet sold.	Total cost all gas-mak- ing material, including freight.	Cost material per 1,000 feet sold.	Miscellaneous expenses, including taxes, re- pairs, rents, etc.	Miscellaneous expenses per 1,000 feet sold.	Total cost of gas at burner.	Cost per 1,000 feet of sales.
1. United States.....	\$5,273,550	\$893	7.8	\$12,436,295	\$550	18.5	\$20,605,355	30.7	\$14,709,022	22.0	\$53,064,174	80.791
2. Alabama.....	30,674	767	25	31,611	421	25.7	51,010	41.5	54,395	44	167,091	1.367
3. Arizona.....	2,020	336	29.5	2,860	712	40.2	7,790	110	5,091	71.9	17,751	2.507
4. Arkansas.....	16,469	716	24	21,589	635	32.4	38,228	57.4	24,453	36.7	107,744	1.514
5. California.....	229,285	1,120	13.6	497,237	703	20.5	995,893	53.2	694,847	36	2,227,222	1.326
6. Colorado.....	27,048	896	7.8	54,051	496	15.5	122,539	35.4	100,135	28.9	304,074	.878
7. Connecticut.....	117,238	875	11.1	231,102	653	23	392,248	34.5	332,395	31.7	1,042,986	.995
8. Delaware.....	18,285	871	9.5	31,958	477	16.7	50,853	26.5	21,034	10.9	122,130	.803
9. District of Columbia.....	105,908	2,161	9.7	292,796	531	18.8	263,989	33.9	66,637	6.2	739,280	.687
10. Florida.....	16,228	579	20.8	24,108	513	30.9	41,324	52.9	54,445	69.7	136,105	1.744
11. Georgia.....	56,314	751	12.4	92,265	340	20.4	141,597	31.3	185,602	41.9	476,688	1.052
12. Illinois.....	799,514	930	8.2	1,205,670	550	13.9	1,980,547	21.1	1,046,946	11.1	5,112,676	.644
13. Indiana.....	89,324	612	11.6	172,431	507	22.5	255,864	32.7	184,096	24	701,714	.902
14. Iowa.....	70,120	778	14.4	118,307	533	24.8	203,951	43.4	269,017	54.2	651,405	1.364
15. Kansas.....	25,595	512	14.1	48,562	571	22.2	108,597	31.3	40,651	23.1	231,605	1.274
16. Kentucky.....	51,129	852	11.4	121,744	498	27.2	139,194	31.1	194,575	43.4	595,406	1.103
17. Louisiana.....	37,143	1,022	18.1	40,965	666	19.8	71,114	34.7	104,234	50.9	283,156	1.237
18. Maine.....	29,068	618	17.6	37,958	622	22.5	73,394	44.4	60,139	36.4	200,589	1.215
19. Maryland.....	84,737	1,039	5.9	136,980	578	9.7	481,013	34.4	268,390	19	971,119	.686
20. Massachusetts.....	420,085	991	8.9	813,459	577	17.4	1,651,073	35.3	1,447,205	24.5	4,032,623	.862
21. Michigan.....	122,307	626	12.6	293,976	446	26	298,321	26.4	360,397	33.7	1,115,001	.889
22. Minnesota.....	46,354	834	6.4	198,559	449	22.3	303,988	40.3	146,195	19.4	696,975	.885
23. Mississippi.....	10,548	959	28.7	9,164	381	24.9	15,763	45.6	23,686	64.2	60,040	1.635
24. Missouri.....	112,451	759	4.3	464,417	556	17.8	755,487	46.6	266,572	8	1,589,967	1.810
25. Nebraska.....	36,855	946	11.1	79,833	278	24.1	134,352	40.5	135,152	40.8	398,371	1.166
26. Nevada.....	4,400	1,457	91.5	2,680	583	54.9	9,385	192.5	3,121	64	19,644	4.531

27. New Hampshire.....	25,409	721	11.9	59,780	464	28.1	85,939	40.8	129,922	61.1	301,120	1,415
28. New Jersey.....	271,605	733	9.9	694,219	518	24.9	785,979	28.6	1,074,867	30.1	2,816,780	1,028
29. New York.....	1,320,036	997	6.3	3,678,712	683	17.7	5,896,549	28.2	5,080,906	24.4	15,924,203	787
30. North Carolina.....	14,579	767	30.1	14,256	303	30.6	37,370	80.4	40,789	87.8	15,106,904	2,803
31. Ohio.....	277,204	979	8	601,815	433	17.4	894,587	26.7	667,927	19.9	2,451,533	712
32. Oregon.....	13,780	919	20.3	18,764	670	27.7	52,704	77.8	23,262	34.4	108,810	1,608
33. Pennsylvania.....	457,022	762	5.2	1,506,266	479	17.1	3,150,665	35.8	1,113,966	12.7	6,228,011	708
34. Rhode Island.....	49,850	1,107	6.6	249,021	679	32.5	244,124	31.8	212,872	27.8	755,867	987
35. South Carolina.....	11,649	506	11.7	30,127	289	33.3	38,440	38.6	45,762	46.1	126,008	1,263
36. Tennessee.....	41,049	838	11.9	64,539	296	18.7	135,110	39.2	116,848	33.9	367,546	1,038
37. Texas.....	46,037	1,123	26.7	46,166	650	20.7	94,180	54.7	56,080	32.6	242,463	1,409
38. Vermont.....	6,515	501	18.1	7,837	522	22.3	20,191	53.2	13,960	38.8	48,463	1,351
39. Virginia.....	42,139	796	10.3	84,801	637	20.8	130,759	32.1	78,832	19.4	336,531	828
40. Washington.....	25,526	600	18.4	42,048	519	30.4	76,929	55.6	81,097	58.7	225,600	1,631
41. West Virginia.....	10,464	403	7.1	39,980	490	27.1	32,978	22.4	19,238	13	102,690	1,668
42. Wisconsin.....	89,265	726	7.4	268,459	504	23.5	321,047	26.9	263,666	22.1	942,867	700
43. All other States.....	19,962	739	17.7	37,536	605	33.2	79,543	70.5	49,336	43.7	186,367	1,652
44. Municipal plants in United States (total number, 15).....	36,710	700	7.3	107,007	615	23	148,262	30.5	60,122	12.4	351,161	724

Be it ordained by the city council of the city of Chicago:

SECTION. 1. That no corporation, company or companies, firm or person, manufacturing, selling, supplying, or distributing gas in the city of Chicago for illuminating or for fuel purposes shall charge, exact, demand, or collect from any consumer thereof for the next five years from and after the taking effect of this ordinance more than the sum of eighty-five cents for one thousand cubic feet of gas consumed or used. Said sum of eighty-five cents per one thousand cubic feet of gas shall be the net price charged, exacted, demanded, or collected from each consumer; provided, however, that any corporation, company or companies, firm or person, distributing or selling gas in the city of Chicago may charge ninety-five cents per one thousand cubic feet of gas furnished to such consumer in all cases where payment at the rate of eighty-five cents per one thousand cubic feet is not made to said corporation, company or companies, firm or person, within ten days from the date of bill for same. The illuminating gas so furnished shall afford a light of not less than twenty-two candlepower, to be measured and ascertained at the places of consumption in said city by the most modern appliances known to science for measuring the candlepower of illuminating gas.

SEC. 2. That any company, corporation, person or persons, who shall, during the five-year period above mentioned, remove any meter or meters from the house, store, factory, or premises of any consumer of gas in the city of Chicago against the will and consent of any such consumer of gas who is willing to pay for gas furnished him, it, or them by such company, corporation, person or persons, and tenders the amount due at the price established and fixed in section 1 of this ordinance, shall be subject to a penalty of not less than twenty-five dollars nor more than two hundred dollars for each and every offense; provided, however, that any company, corporation, person or persons furnishing gas to consumers in the city of Chicago shall have the right to remove any meter or meters for the purpose of repairing the same on condition that such meter or meters so removed shall be replaced or a new one substituted in its place within twenty-four hours of the time of the removal of any such meter or meters.

SEC. 3. That any company, corporation, person or persons who shall, in violation of the provisions of the preceding sections, charge or require the city of Chicago or any citizen thereof or any consumer of gas therein to pay for gas furnished to it or them, or either of them, during the five-year period mentioned in section 1 a sum in excess of the rates specified in section 1 or who shall during said period furnish to the said city of Chicago or any citizen thereof manufactured gas of less than twenty-two candlepower shall be subject to a penalty of not less than twenty-five dollars nor more than two hundred dollars for each and every offense.

SEC. 4. That the ordinance passed by the city council of the city of Chicago on October 15, 1900, regulating the maximum prices of gas to be charged to consumers and to the city of Chicago by persons, firms, or corporations manufacturing, selling, or distributing gas within the city of Chicago be, and the same is hereby, repealed, except as hereinafter provided.

SEC. 5. That the repeal of the ordinance mentioned in the preceding section shall not affect suits pending or rights existing at the time this ordinance takes effect or penalties then incurred, but the city of Chicago and all persons, firms, companies, or corporations who were consumers of gas within the city of Chicago during any portion of the time said ordinance was in effect shall hereafter have the right, severally and respectively, to bring and maintain such suit or suits in any court or courts of competent jurisdiction for the purpose of recovering any and all penalties, demands, overcharges, or claims based on or growing out of the rights conferred by said ordinance of October 15, 1900, in the same manner and to the same extent as if said ordinance had not been repealed; and the said ordinance of October 15, 1900, shall continue in full force and effect for all the purposes aforesaid.

SEC. 6. That any company or companies manufacturing or distributing gas may purchase or sell gas to or from any other company or companies manufacturing or distributing gas in the city of Chicago; and any such company or companies may lease and demise to any other company or companies mains, pipes, meters, works, plant, and appliances, or any part thereof, of such company or companies on such terms as said companies may agree upon, and such other company or companies may take and acquire the mains, pipes, meters, works, plant, and appliance, or any part thereof, so leased and demised and thereafter operate the same and manufacture and distribute gas by means

thereof, and such purchase and sale of gas, or such lease and demise of pipes, mains, meters, works, plant, and appliances, or any part thereof, shall never be held or construed to be an abandonment or waiver of any ordinance rights of the company or companies so selling gas or leasing and demising its mains, pipes, meters, works, plant, and appliances, or any part thereof, nor as authorizing the assignment of any ordinance vested in the company so selling gas or leasing and demising its mains, pipes, meters, works, plant, and appliances, or any part thereof, nor as authorizing a lease and demise of franchise rights not authorized by the laws of the State of Illinois.

Sec. 7. Section 13 of the ordinance passed February 25, 1895, and accepted March 4, 1895, granting the right to the Ogden Gas Company to construct, maintain, and operate gas works in the city of Chicago, and section 12 of the ordinance passed July 23, 1894, accepted August 22, 1894, granting the right to the Universal Gas Company to construct, maintain, and operate gas works within the city of Chicago, and each of said sections shall be, and they are hereby, repealed; provided, however, that nothing herein contained shall ever be held or construed as in any manner prejudicing or affecting the right of the city of Chicago to purchase the entire plant of said Ogden Gas Company and all its property and effects of every kind and description within the city of Chicago at the appraised value thereof at the time and in the manner and subject to the terms and conditions expressed in section 14 of said ordinance granting to the Ogden Gas Company the right to construct, maintain, and operate gas works in the city of Chicago, nor as in any manner prejudicing or affecting the right of the city of Chicago to purchase the entire plant of said Universal Gas Company and all its property and effects of every kind and description within the city of Chicago at the appraised value thereof at the time and in the manner and subject to the terms and conditions expressed in section 13 of the said ordinance granting the right to the Universal Gas Company to construct, maintain, and operate gas works within the city of Chicago.

Sec. 8. The Ogden Gas Company and any company or companies manufacturing or distributing gas to whom it may sell gas or to whom it may lease and demise its mains, pipes, meters, works, plant, and appliances, or any part thereof, as hereinbefore authorized, are hereby released and absolved from the payment from and after the taking effect of this ordinance of the compensation provided to be paid to the city of Chicago in and by section 9 of said ordinance passed February 25, 1895, granting to said Ogden Gas Company the right to construct, maintain, and operate gas works in the city of Chicago, which said section 9 of said ordinance be, and it is hereby, repealed, and the Universal Gas Company and any company or companies manufacturing or distributing gas to whom it may sell gas or to whom it may lease and demise its mains, pipes, meters, works, plant, and appliances, or any part thereof, as hereinbefore authorized, are hereby released and absolved from the payment from and after the taking effect of this ordinance, of the compensation provided to be paid to the city of Chicago in and by section 8 of said ordinance passed July 23, 1894, granting to said Universal Gas Company the right to construct, maintain, and operate gas works in the city of Chicago, which said section 8 of said ordinance be, and it is hereby, repealed. And the Peoples' Gas Light and Coke Company, the Ogden Gas Company, and the Universal Gas Company are hereby severally released and discharged from all obligations to make payment of any compensation to the city of Chicago under said ordinances or otherwise; provided, however, nothing herein contained shall ever be construed as releasing or waiving the existing obligation to pay, from and after the passage and taking effect of this ordinance, five per cent of the gross receipts from the sale of natural gas, as hereinafter mentioned.

Sec. 9. The amount due from the People's Gas Light and Coke Company to the city of Chicago up to the time of taking effect of this ordinance, being five per cent of the gross revenue derived from the sales of natural gas, shall be paid to the city of Chicago by crediting said amount upon the sum of upwards of \$1,300,000 due from the city of Chicago to the People's Gas Light and Coke Company for gas furnished for lighting the streets of the city of Chicago by said the People's Gas Light and Coke Company. The People's Gas Light and Coke Company shall release and discharge the city of Chicago from the payment of the net amount due from the city of Chicago for gas supplied by said the People's Gas Light and Coke Company for lighting the streets of the city of Chicago. The Ogden Gas Company shall pay in cash to the city of Chicago the amount due up to the time of taking effect of this ordinance, being upwards of \$117,000, on account of the compensation provided to be paid in and by section

9 of said ordinance passed February 25, 1895. The city of Chicago shall release all claims it has against the Universal Gas Company on account of claims for unpaid compensation under said ordinance passed July 23, 1894. The People's Gas Light and Coke Company shall pay the five per cent on the gross revenue derived from the sales of natural gas in the city of Chicago from and after the taking effect of this ordinance.

The bill filed by the city of Chicago against the Ogden Gas Company, the People's Gas Light and Coke Company, and the Farmers' Loan and Trust Company, pending in the circuit court of the United States for the northern district of Illinois, and being general number 25879 of said court, shall be forthwith dismissed by the city of Chicago without costs to either party.

Sec. 10. This ordinance shall first be published in the manner provided by law, and ten days after such publication has been made this ordinance shall take effect, provided the People's Gas Light and Coke Company, the Ogden Gas Company, and the Universal Gas Company shall severally accept the same in writing, and the Ogden Gas Company pay the amount in cash due the city of Chicago from said Ogden Gas Company, and the People's Gas Light and Coke Company acknowledge to the city of Chicago payment in full of all net sums due it from the city of Chicago on account of gas furnished for lighting the streets of the city of Chicago, all during said period of ten days; and upon the taking effect of this ordinance, this ordinance shall constitute a contract by and between the city of Chicago and said the People's Gas Light and Coke Company, and by and between the city of Chicago and said Ogden Gas Company, and by and between the city of Chicago and said Universal Gas Company.

Mr. OLCOTT. The result of this report was to reduce the price of gas.

Mr. MADDEN. Yes; to 85 cents.

Mr. MEYER. Has there been any protest made by the gas company?

Mr. MADDEN. In answer to that I will say that a number of years ago I was a member of the city council, and chairman of the finance committee for seven years. When I was first made a member of the finance committee the price of gas was \$1.25 per thousand and the price of gas for public lighting was \$25 per lamp. The gas company paid no percentage of its receipts into the city treasury at that time. It paid its taxes on various franchises and everything like that into the treasuries of the county, city, and State, which amounted to perhaps 1½ per cent on its actual cash value. As chairman of the finance committee, I was able to enter into a contract on behalf of the city with the gas company to reduce the price of gas, and in 1891 we reduced it from \$1.25 to \$1, at the same time securing from them a pledge, which was not a binding obligation excepting in so far as their honor went, to pay 3½ per cent of their gross receipts into the city treasury every year.

Mr. SIMS. In addition to the other?

Mr. MADDEN. Yes; in addition to the reduction. That pledge was continued and kept faithfully from the time that I had the price reduced. This was not by ordinance, but by agreement—verbal agreement. I was able to get that verbal agreement from them if they would reduce the price from \$1.25 to \$1 and pay 3½ per cent into the treasury. They did that right along until this arrangement was made last year. What they are doing now in the way of paying a percentage on gross receipts I do not know.

Mr. OLCOTT. Are they paying this percentage of the gross receipts in addition to the taxes on real estate, franchises, and so forth?

Mr. MADDEN. That had relieved them in no sense whatever from the payment of taxes.

The CHAIRMAN. How much are their taxes on the gross receipts?

Mr. MADDEN. There is no tax on their gross receipts. The tax there is levied by the county, city, and State on real estate and capital stock, and the way they tax is by ascertaining the value of the capital stock, then ascertain the bonded debt and add the bonded debt to the capital stock. I should assume that the bonds would not be issued if it was not for the fact of the added capital. They tax the capital and the bonds, and the real estate besides. They deduct the value of the tangible property from the value of the stock and bonds, and assess the balance.

Mr. SIMS. Then this $3\frac{1}{2}$ per cent is a voluntary contribution on the part of the company, and not a tax.

Mr. MADDEN. Yes, sir; and in addition to that, we reduced the cost of street lighting from \$25 a lamp to \$11 a lamp. What they are doing now, I don't know, for I have not been identified with the municipality for a long time.

Mr. SIMS. Can you tell us what amount of tax is collected on \$100 of value?

Mr. MADDEN. About $1\frac{1}{2}$ per cent on the actual value, not on the gross earnings, but on the actual value of the property.

Mr. SIMS. Ascertained by the method you have named, not only tangible property, but stock, bonds, and everything?

Mr. MADDEN. Oh, yes.

The CHAIRMAN. You have had wide experience in matters of this kind, so I would like to ask you if you think a tax on gross receipts of this gas company at 5 per cent, which I believe is the rate, and on other public service corporations 4 per cent—that is, the street-railway lines pay 4 per cent and the gas company pays 5 per cent—do you think that is an adequate and fair tax?

Mr. MADDEN. There is no other tax, excepting that, is there?

The CHAIRMAN. I think the real estate is assessed.

Mr. MADDEN. I think this covers it all.

The CHAIRMAN. Five per cent on gross earnings.

Mr. MADDEN. I don't think, Mr. Chairman, that it is a fair tax; I don't think it is fair to the people under all the circumstances.

The CHAIRMAN. You do not think that is sufficient?

Mr. MADDEN. No; I do not think it is enough. Of course, if you are going to reduce the price of gas to a point where the company and the people would both benefit equally by it, I think there ought not to be any disposition to do an injustice either to the gas company or to anybody else. What I am trying to accomplish is not with the hope of doing anything excepting equal justice to everybody.

The CHAIRMAN. I notice in your bill relating to the street railway lines there is a clause advocating a tax of 20 per cent on gross receipts.

Mr. MADDEN. Yes, sir; and I do that for the reason that I believe the street railway lines and the gas company, and all of them, can afford to pay it, because they are not paying any other taxes.

The CHAIRMAN. Do you believe that they should be on the same basis?

Mr. MADDEN. Certainly, I do.

The CHAIRMAN. Would you not take the earning capacity of the different companies into consideration?

Mr. MADDEN. I don't know that you have a right to do that. In the State of Illinois, if you own a piece of real estate that is unpro-

ductive, and you pay \$100,000, or even a million dollars for it, you are not relieved from the burden of taxation if you let it lay there in idleness with no earning power.

The CHAIRMAN. You can take one of the street-car lines in the city of Washington, for instance, whose earnings are large, much more than the gas company, while other lines earn hardly sufficient to pay their running expenses.

Mr. MADDEN. But you can not take one line; you must take all the lines and put them together.

The CHAIRMAN. Would you treat both propositions the same? Would you treat one company, which was making large earnings—perhaps 50 per cent of its gross earnings being net profit—the same as other lines barely able to support themselves, putting them both on the same basis, so far as tax on gross receipts is concerned?

Mr. MADDEN. You can not make a tax to meet special cases; you must treat everybody alike. The fact that a man does not earn anything and loses money because of tax liability will cause him to get out of business.

The CHAIRMAN. That does not apply in some of the Western States. In Wisconsin the roads earning \$10,000 a mile, \$7,000 a mile, and less than \$5,000 a mile are put in three classes and taxed accordingly; that is, they are taxed on the basis of their earning capacity.

Mr. MADDEN. If you are going to tax on the gross receipts you will have to do it regardless of the net earnings.

The CHAIRMAN. Under this proposition we will have to take up the whole subject. Here is a line of road, and, whether it is a railroad or a street-car line, their gross receipts are not sufficient to pay the operating expenses and fixed charges. Here is another line in the same city where 50 per cent of the gross receipts are net profit. Would it be justice and equity to treat them both alike and on the same basis?

Mr. MADDEN. Mr. Chairman, when the legislative bodies of the nation and the States make taxation laws they make them to apply to all alike, and treat every question of similar nature along the same lines. They do not discriminate.

The CHAIRMAN. For instance, a railroad paying taxes according to the earning capacity—

Mr. MADDEN. I do not know of a place anywhere where they have done that, unless it is in Wisconsin, where the reformers are running things. But I did not know that I was asked to take up the railroad question.

The CHAIRMAN. No; but I simply asked that by way of comparison of taxation upon their gross receipts with that of the gas company.

Mr. MADDEN. I think every public service corporation ought to be treated in the same way.

The CHAIRMAN. That is what I wanted to get at.

Mr. MADDEN. One line of street railways may not make any money; they may lose money; but it is not a question of what the particular line does; it is a question of what the company that owns the line does on all of the lines. I sell goods every day for less money than they cost me, because I want to keep my men at work and my organization complete. I sell other goods at a large profit, but I am per-

fectly willing to sell a large percentage of all the goods that I sell for less money than they cost in order that I may be able to produce all of it for less money than I can produce any of it if I could not keep my organization complete all the time. These men that run the street-car lines in Washington have to do that, as everybody else would have to do it. They would not listen for a minute to the granting of a franchise to somebody else on one of the so-called losing lines, and why do they want it? They want it because they want to prevent somebody else from getting it, in the first place, and, in the next place, because they believe that the development of this community is going to be such that while they may have losses to-day they will win to-morrow. And that will be true. This is going to be a great city—a city of a million people in less than fifty years. The value of these franchises nobody can estimate. And if we are not here somebody else will be, and we ought to have sense enough to legislate for those who are coming after, to show that we had consideration for the future as well as for the present.

STREET RAILWAYS.

Mr. MADDEN. Now, as to the street car lines, let me say, if I may be allowed to do that, that I am not going into that very fully from the standpoint of cost; but I want to say this, that the line running from the Capitol to Mount Pleasant, while the cars are comfortable and all that—such cars as they have—is conducted in such a way as to make them vile, and no company ought to be allowed to run a street car system in a manner like that in the capital of the nation, under the conditions that these people are running these street cars.

The CHAIRMAN. I am surprised to hear a gentleman from Chicago, where they have the worst street car lines that I ever saw, make a remark like that.

Mr. MADDEN. That statement of mine does not approve of the street-car lines of Chicago; it does not mean that. It does not mean that I ever did approve of them. But the fact that the Chicago street-car system is not a good one is no excuse for making the street-car system in Washington a bad one.

The CHAIRMAN. That is true.

Mr. MADDEN. You can not get a seat in these cars that I have mentioned, and they only run them every fifteen or twenty minutes. The people have to stand until they are packed in like a lot of hogs, and at almost any hour of the day. They tell me that when they speak to General Harries about these things, he laughs and says: "What are you going to do about it?"

General HARRIES. Mr. Chairman, I would laugh at the gentleman—

Mr. MADDEN. Let me say one word more before the General speaks. The General has presumed to assume that I am controlled by somebody. Now, I have never mentioned this to anybody, and I say it to the General first in his presence. He has assumed to write letters to friends of mine, in which he says that he can not believe that I am sincere about this thing; that he believes that I am being used by somebody. Let me say to him that neither he nor any other man that lives can use me. I am not used by anybody.

Mr. SIMS. Have you the letter?

Mr. MADDEN. I have the letter written by the General.

Mr. SIMS. On the gas question or the street-car question?

Mr. MADDEN. On the street-car question. I have the letter.

General HARRIES. I want to say that any letter that I may have written not only does no injustice to Mr. Madden, but has no intention of doing any injustice to him, and will bear the scrutiny of any man.

Mr. MADDEN. I will produce the letter.

Mr. SIMS. Can the letter go into these hearings?

Mr. MADDEN. No; I do not want to put it in.

General HARRIES. I want to say in regard to the Connecticut avenue line that the service during the busy hours is every two minutes, then it is three minutes, and never over four minutes, until late at night, and then it becomes five minutes, which is the minimum.

Mr. MADDEN. I have waited twenty minutes, and so does everybody else wait twenty minutes.

General HARRIES. That twenty minutes may have been when there was an accident.

Mr. MADDEN. It is general, regular, and systematic in its operation.

General HARRIES. I am perfectly willing, if the gentleman can make that statement good, to give \$500 to any charity in the city of Chicago that he may name.

Mr. MADDEN. Well, when I want to contribute anything to Chicago charity I will do it myself.

General HARRIES. I am not interested in Chicago charity, but I am willing to contribute that if the gentleman can make that good.

Mr. MADDEN. I want to say to the gentleman, that the capitalization of the traction companies in Washington is far above the cost of production of the plants, and they can afford very well, not only to give universal transfers, but they can afford to run cars—

Mr. CAMPBELL. Are we to take up the railway matter now?

The CHAIRMAN. That is a question for Mr. Madden to determine.

Mr. MADDEN. I understood that I was to go from one to the other.

Now, the capitalization of the traction companies, as I understand it, amounts to \$30,000,000 and a little over, and upon that there have been 8.2 per cent interest earned.

Mr. SIMS. What company are you speaking of?

Mr. MADDEN. I am speaking about all of the street-car lines, if I understand it.

The CHAIRMAN. There are two corporations here, Mr. Madden, the Capital Traction Company, and the Washington Railway and Electric Company.

Mr. MADDEN. Yes. The Metropolitan Company was reorganized here sometime since, was it not; and there were universal transfers ordered at the time of the reorganization of this company, from one company to the other, but no such universal transfers have ever been given. It seems to me that in a city where you can not ride over 4 miles on any one ride, you ought to at least have facilities to ride during the time that you are on the cars. You ought to be permitted to transfer from one line to another at any intersecting point of any one railroad with another. They ought to either give 3-cent fares in a city like this, or they ought to give universal transfers; and they ought to give 25 tickets for a dollar, and pay 20 per cent upon

the gross receipts. They can afford to do it. The street car companies in Cleveland, Ohio, recently adopted the 3-cent fare plan. Since they have adopted it, the amount of travel has been so enormously increased that the street car company is delighted with the result. They adopted it on their own motion.

The CHAIRMAN. Mr. Beidler, Mr. Madden is referring to your city.

Mr. MADDEN. I am talking about Cleveland. I understand from what I see in the newspapers that the people of Cleveland are not only delighted, but that the street car-company is satisfied with the 3-cent fare proposition.

Mr. BEIDLER. That is not the case. They are using 3-cent fares now for a period of thirty days as an experiment—a sort of truce—to see whether they can afford to do it profitably.

Mr. SIMS. Mr. Madden, about what does it cost per mile, single and double track, for an underground electric road such as we have here in Washington?

Mr. MADDEN. About \$30,000 a mile for an underground single track.

Mr. SIMS. What does it cost per mile for an overhead trolley?

Mr. MADDEN. About \$15,000.

Mr. SIMS. Then it is about half and half?

Mr. MADDEN. Yes.

Mr. SIMS. Do you know the number of miles of track controlled by the Capital Traction Company; that is, double track?

Mr. MADDEN. I understand that they have 20 miles of double track. That would be \$1,200,000 of cost, without the equipment.

Mr. SIMS. Do you know what the number of miles of double track is of the other companies, and what would they cost, including equipment, power, and everything?

Mr. MADDEN. I should think you could put the entire plant in for \$2,000,000 easily.

Mr. SIMS. And the stock is \$12,000,000, bonded indebtedness and all?

Mr. MADDEN. The stock is thirteen millions and something, and they are paying 8 per cent on it.

Mr. SIMS. The stock is selling for about \$140 on the market?

Mr. MADDEN. Yes, sir.

Mr. SIMS. And the cash value of the property, measured by the value of the stock and bonds, would be about seventeen or eighteen million dollars?

Mr. MADDEN. Yes. Of course that is based entirely upon the earning power!

Mr. SIMS. And the value of that tangible property, if you had to put the money in, would be about \$2,000,000?

Mr. MADDEN. About \$2,000,000 would cover the whole thing.

Mr. SIMS. And the value of the franchise is about \$15,000,000, I believe?

Mr. MADDEN. The value would fluctuate according to conditions.

Mr. SIMS. I mean the present market value.

Mr. MADDEN. Yes, sir.

The CHAIRMAN. I think, possibly, you are in error in one statement, Mr. Madden. I understand that the Capital Traction Company has about 30 miles of track. I think you said 20 miles.

Mr. MADDEN. I thought it was about 20 miles, which would be 40 miles of single track.

The CHAIRMAN. I mean 30 miles of double track.

Mr. SIMS. It was reported as 20 miles of double track last year.

Mr. MADDEN. The report shows 20 miles.

The CHAIRMAN. Is it not 30 miles?

Mr. George P. DUNLOP. The Capital Traction Company has 44 miles of single track.

Mr. MADDEN. Which makes about 20 miles of double track, as I said.

Mr. KLINE. What proportion of the gross receipts are required for operating expenses?

Mr. DUNLOP. About 55 per cent.

Mr. SIMS. Mr. Dunlop, how many miles of underground road do you have, and how many miles of overhead trolley?

Mr. DUNLOP. Five miles of overhead trolley.

Mr. SIMS. And the rest is underground?

Mr. DUNLOP. Yes, sir.

Mr. Madden has stated that it would cost \$30,000 a mile to lay an underground system for a single track. We have just laid a little less than 2 miles within this last year in the extension of the Fourteenth street line, and the building of the car barns, and which will cost us over \$600,000.

Mr. MADDEN. How much will the car barns cost?

Mr. DUNLOP. The contract price was about \$200,000.

Mr. SIMS. How much did it cost per mile?

Mr. DUNLOP. About \$60,000 a mile.

Mr. SIMS. Of single track?

Mr. DUNLOP. Yes, sir.

Mr. SIMS. Without equipment?

Mr. DUNLOP. Yes, sir.

Mr. SIMS. Just to lay the track?

Mr. DUNLOP. Yes, sir. A report will be made to Congress in regard to it in a few days.

Mr. SIMS. Can you not state now what it is?

Mr. DUNLOP. No; I can not.

Mr. SIMS. What would it cost to construct another plant?

Mr. DUNLOP. The whole plant?

Mr. SIMS. Including all the property.

Mr. DUNLOP. Its entire capitalization, the old horse road, the cable road—

Mr. SIMS. Oh, no. Suppose that it should all be destroyed by an earthquake, or in some other way, and you had to reproduce it, what would it cost?

Mr. DUNLOP. I can not give you the figures, but you have it in print in connection with an investigation made last winter.

Mr. SIMS. You being president of the road, it ought to be on your fingers' ends.

Mr. DUNLOP. I can not carry all the figures in my mind, but I am willing to give you whatever I have.

Mr. SIMS. It would not cost at most what your capital stock is, would it?

Mr. DUNLOP. My recollection is that it was something over \$6,000,000.

Mr. SIMS. Actually paid out?

Mr. DUNLOP. That it would cost something over \$6,000,000 to reproduce the plant at the present time. But that would be under all of the scientific appliances of the present day. You must recollect that we have gone through forty-five years' experience. We have been ripped out two or three times, and are apt to be again, from the Peace Monument to Fifteenth street, and it is all in the capitalization, the whole cost.

Mr. MADDEN. About \$4,000,000, I think, would reproduce it.

Mr. DUNLOP. We have been producing it for forty-five years.

Mr. SIMS. Of course, material is higher now than it has been at any time since the civil war.

Mr. DUNLOP. Mr. Madden's information of \$30,000 is imperfect.

Mr. MADDEN. But I know where contracts have been let for \$30,000.

Mr. DUNLOP. I think the Capital Traction Company has been able to get just as good contracts as any company in this country.

Mr. SIMS. But you have not been able to make one at \$30,000 or \$40,000?

Mr. DUNLOP. Certainly not; and we can buy material as cheap as any other company in this country. We pay cash, and borrow the money to do it.

Mr. MADDEN. I think there ought to be something done to give the people of Washington better street-car facilities, giving them more accommodations, putting on more street cars, reducing the fares, and increasing the revenue to the treasury of the District from the public-service corporations; in general, having a better system of street-car travel.

Mr. SIMS. Your bill carries 20 per cent taxes, free transfers, and 25 tickets for a dollar. I presume that your idea was, providing these features were retained in the bill, these charges were correct?

Mr. MADDEN. Certainly.

Mr. SIMS. Suppose that the 20 per cent tax provision should not be adopted, you would or not reduce the price of the fares, would you?

Mr. MADDEN. If the committee thought it was wise to adopt some other plan than the one proposed in my bill. Of course, I am not here to dictate just what the committee should do, but if the committee should decide that what I propose is not wise in all its features, that 20 per cent of the gross receipts was too much to pay, and universal transfers are not possible, it seems to me that at least the committee ought to report a bill, in the event of their failure to do the things suggested in the bill that I propose, providing for \$30,000.

Mr. KLINE. Did you state the gross receipts of this company?

Mr. SIMS. There will be a report filed as to that to-day, will there not?

Mr. DUNLOP. Yes.

Mr. SIMS. I am told that they never make that known until the last day of the year.

Mr. DUNLOP. I perhaps misunderstood Mr. Madden, but I understood him to say that the capitalization of our company was \$30,000,000.

Mr. MADDEN. Oh, no.

Mr. BEIDLER. You say, Mr. Madden, that we ought to have 3-cent fares. Have you any figures to show what it would cost to carry the passengers upon the street-car lines?

Mr. MADDEN. I can only cite you to this, Mr. Beidler: In Chicago we are now, after long years of controversy, about to settle the street-car question. You know that Chicago contains 191 square miles of territory. It is about 25 miles long and about 14 miles wide, as near as I can estimate the distances. In the settlement of the street-car question there they are going to unify the railroad systems. Any one who has been in Chicago will realize its peculiar formation. The river runs around and divides it into three sections—the north, the south, and west sides. The west side has had what is called the West Chicago Street Railway Company, the north side has had what is called the North Chicago Street Railway Company, and the south side, the Chicago City Railway Company. The Union Traction Company controls the west and north side traction, and they all come into the center of the city in what is known as "The loop." You can ride on every one of these lines, with the number of transfers that you can get, 17 miles for 5 cents. When they unify the system, as they will do, you can ride 40 miles for 5 cents.

Mr. CAMPBELL. Do they sell fares for less than 5 cents—tickets?

Mr. MADDEN. No; it is a 5-cent fare.

Now, as I say, you can not ride under any circumstances here more than 4 miles on one ride.

Mr. DUNLOP. I beg pardon, you can ride from the navy-yard to Chevy Chase, 9 miles, for 4½ cents.

Mr. MADDEN. Is it not 6 cents?

Mr. DUNLOP. No; 4½ cents; six tickets for a quarter, and with three transfers issued.

General HARRIES. You can ride 15 miles on our system for 6½ cents.

Mr. MADDEN. Where is that?

General HARRIES. From Congress Heights to the District line on the Tennallytown road, 15 miles; and on a system that cost four times as much as it would have cost to build the Chicago system, so that it represents four times as much mileage.

Mr. MADDEN. The mileage is what you must count on. If you can ride 40 miles for 5 cents, and I will assume that the general is right when he says that you can ride 15 miles on his system for 5 cents, then that 15 miles as compared with 40 is quite a difference. And I will say that in addition to the 40 miles that a passenger can ride on a single fare, the city of Chicago is to get 55 per cent of the net receipts of the company.

Mr. SIMS. And the company only retains 45 per cent?

Mr. MADDEN. And the company is required to put in \$40,000,000 to rehabilitate the system.

Mr. BEIDLER. What bearing has that on the 3-cent fare proposition here? I asked you awhile ago if you could tell the cost of carrying a passenger here.

Mr. MADDEN. I think the cost of carrying a passenger here is about 2½ cents, as near as I can figure it out.

Mr. DUNLOP. Gentlemen, it is easily figured out. We carried about 40,000,000 last year, and our receipts were \$1,704,000. We issued about 15,000,000 transfers. It costs about 2½ cents per passenger.

General HARRIES. The Chicago situation is this: It was agreed that the value of the Chicago properties shall be fixed at \$50,000,000, and upon that valuation there shall be paid to the stockholders and bondholders 5 per cent. That will be 5 per cent on every dollar invested in new cars, new construction, and whatever may be done. There are tunnels to be constructed—a subway. They are to be constructed by the city, but the money is to be advanced by the railroad companies, and they get 5 per cent for that. Six per cent is set aside for maintenance out of the ordinary operating expenses, and must be expended. In addition to that they set aside 8 per cent for depreciation, and that, too, must be expended, otherwise it lapses into a fund where it will be of no use. Now, after every stockholder and investor has received 5 per cent on the value of the property now existing and all the money that is to be invested in construction—a very large sum, \$40,000,000—when that is all done the city takes 55 per cent of the net and the corporation 45 per cent.

Mr. MADDEN. You are wrong about that.

General HARRIES. I beg pardon; I think not.

Mr. MADDEN. The city gets 55 per cent of the net receipts after the actual operating expenses have been paid, and if the railroad company advances any money to the city of Chicago for the improvements that belong to the city in the shape of tunnels, subways, and such things, of course the city ought to pay—

General HARRIES. I can put the ordinance right into the hands of this committee.

Mr. MADDEN. It ought to be done then. I do not want anything unfair.

General HARRIES. But I want to say this, that such an agreement as that would certainly be welcomed by the street railway lines of Washington after the manner in which the franchises are being jumped on, and to such an extent, I will say, that a franchise does not represent any tangible value. It is continually subject to all the varieties of attack; to increased taxes; is always being taxed.

Mr. SIMS. Why does the property sell for more than it would cost to reproduce it?

General HARRIES. A man does not deliberately throw away money. They have got money in and the market value of the stock—

Mr. SIMS. You can not get the stock on the market at a price indicating that there is no franchise value.

General HARRIES. Oh, yes; you can get it.

Mr. SIMS. That market price is away above what it would take to reproduce the lines, therefore the other is the value of the franchise.

General HARRIES. No, I think not.

Mr. SIMS. I don't think the gentleman is fair in stating that none of this value is due to the franchise; in other words, the public contributed nothing to your road.

General HARRIES. I think a franchise that does not produce anything certainly is not worth anything.

Mr. SIMS. If you will only do what Congress expects you to do, consolidate your lines—

General HARRIES. We are doing that now. No business man would have done that if he had had it in his hands. This year, for the first time, one of the companies has just turned the corner, just had a balance upon the right side for the first time. If you make a different

arrangement, such as they have in Chicago, for a term of years, and fix the compensation, we will take that up in a minute.

Mr. BEIDLER. The interest, of course, is guaranteed.

General HARRIES. Yes, on every dollar that is put in and every dollar that is in.

Mr. DUNLOP. Mr. Chairman, I would like to call attention to one thing while Mr. Madden is present. He has stated that in Chicago they collect straight 5-cent fares. In this city we discount the 5-cent fare to the extent of \$286,000, which is left in the pockets of the people. If we had had a straight 5-cent fare, and universal transfers, we would have had more money in our treasury.

Mr. SIMS. Would you be glad to accept that?

Mr. DUNLOP. No, I think it would not be a good thing for the city.

Mr. SIMS. I think the people decidedly differ with you on that.

Mr. DUNLOP. No.

Mr. SIMS. You have left so much in the pockets of the people that they ought to know whether they would rather keep it or pay it out for universal transfers.

Mr. DUNLOP. I was not speaking from that standpoint exactly, but from the standpoint of crowding the cars, which is unnecessary.

Mr. SIMS. You stated that you preferred that, and I thought we might put that in as an amendment to the bill.

Mr. DUNLOP. Oh, no; I said I thought the people preferred that. We can show by actual figures that we left \$286,000 in the pockets of the people, as compared with other places where the 5-cent fare is collected.

Mr. SIMS. You think it would be better to have universal transfers and 5-cent fares than the way it is.

Mr. DUNLOP. I am not prepared to say that.

Mr. SIMS. But I think you did say it.

Mr. E. W. OYSTER. At the hearing before the District Commissioners this question came up as to the capitalization and the cost of construction of street railroads in the District of Columbia. I asked the representatives of the street railroads at that time why it was necessary to have stocks and bonds at that time to the extent of \$50,000,000, and they reported to Congress at the last session—I have the report in my hand—that all the street railroads in the District of Columbia could be duplicated, at the outside, for \$17,750,000. The newspapers stated that the representatives of the railroad companies failed to answer that. I ask that question now, and I hope this committee will find out why it is necessary that they should have stock and bonds out to the extent of \$50,000,000 when they themselves report that these roads can be duplicated for \$17,750,000.

And I would like to know also whether it is not the fact that because the people are expected to pay dividends on highly watered stock—more highly watered with pure water than the average citizen of Washington gets a chance to drink—whether that is not the reason why we must pay the extravagant fares and put up with the miserable service we have here—the outrageous, disgraceful service in the so-called best-governed city in the world—to which of course I do not agree. I want to say that the people of this District owe a unanimous vote of thanks to Mr. Madden for the interest he has taken in the affairs of the District, so far as the gas and railroad question is

concerned. The citizens will owe this committee a vote of thanks if it will give them this long-delayed relief. This committee has frequently promised different citizens' associations—I have no doubt but that the chairman has seen——

The CHAIRMAN. I would like to have the gentleman state what promises the chairman of the committee or the committee have made.

Mr. OYSTER. About two years ago a large delegation came here with a unanimously signed petition from the Brightwood section, and the chairman, then Mr. Babcock, in the presence of a half-dozen people, told the committee that they ought to have better service, and if the company did not give it to us by the time Congress next met, he would see if he could not get it by legislation.

The CHAIRMAN. Did you not get an improved service?

Mr. OYSTER. If the gentleman would ride in our section of the city on the cars, I think he would not fail to understand why the people of that section are just as justified and just as clamorous for improved service as they were two years ago.

The CHAIRMAN. I was advised that the service had been improved.

Mr. OYSTER. There have been some cars put on, but the population in that section has almost doubled within the last two years—it has more than doubled in the little suburb in which I live, Petworth. With that increase of population, the service is really poorer than ever.

Mr. TAYLOR. Since two years ago have you appeared before this committee and suggested this improved service?

Mr. OYSTER. We have sent resolutions here.

Mr. TAYLOR. But have you appeared, or have any of these gentlemen appeared, in person in regard to this matter?

Mr. OYSTER. It certainly has been brought to the attention of the committee by resolutions from the citizens' association, and we are presenting it now in the strongest terms that we can. We have forwarded protest after protest.

The CHAIRMAN. I would like to say that there are quite a number of citizens' associations in Washington, and they meet often. Their principal business is to adopt resolutions and send them here. Now, if the committee undertook to take them all up and act upon them, they would have no time for any other work. We have tried to give the best attention possible to the needs of the District. The matter that you refer to, Mr. Oyster, I took up, and I understood the additional service had been put on your line. Since that time I have not heard anything further. I have had occasion here within a month to take up the same subject on another line. But whether the growth of the population has overcome the additional service, is another question.

Mr. CAMPBELL. How often do you have car service out there now?

Mr. OYSTER. Every half hour——

Mr. BEIDLER. How far out is it?

Mr. OYSTER. About 4 miles beyond the District line, out toward Forest Glen.

Mr. BEIDLER. What is the distance to Forest Glen?

Mr. OYSTER. About 4 miles from the District line. The District line from Seventh street is, I judge, about 4 miles.

Mr. CAMPBELL. How many passengers are there on the half-hour cars?

Mr. OYSTER. They are usually packed, and particularly during the morning hours; that is, from early in the morning up to 9 o'clock, and from 4 o'clock in the afternoon up to about 7 o'clock. Then they are packed and jammed. It is disgraceful the way the women are packed and squeezed into those cars. I always feel as if I would like to have General Harries's wife there to go through what my wife goes through, and he then might probably see the propriety of protecting the women against such a jam and squeezing as we have in those cars. It is absolutely disgraceful, and that is the only term that fits that business. You can not get a seat at any time. The ladies almost tear their clothes off getting through the crowds on the platforms, and it is so packed on the inside that you hardly have room, during the rush hours, to place your feet.

Mr. CAMPBELL. How often do the cars run during the rush hours?

Mr. OYSTER. Probably every five or six minutes.

Mr. CAMPBELL. That crowded condition that you describe often occurs with cars that are within a hundred or two feet of each other on Pennsylvania avenue.

Mr. DUNLOP. Yes; with a half-minute service.

Mr. CAMPBELL. I have seen them so crowded in Chicago that the people could not get on or off, and then, too, the car does not stop long enough to let you get on or off. Comparing the service here with that in Chicago, I should say that the service here is absolutely palatial.

Mr. OYSTER. I would like to give the opportunity for this committee to ride on the Brightwood cars during the rush hours and see if they would not come to the same conclusion that I have.

Mr. SIMS. What are the rush hours?

Mr. OYSTER. From half past 4 to 7, and during the early morning hours.

Mr. SIMS. I want to say that last night at 11 o'clock I came out of the Belasco Theater with 30 or 40 people, and we waited on the avenue for a green car for a little over ten minutes. When the car came along it was so crowded that there was no standing room. When we got to Fifteenth street I thought surely enough people would get out to make room for us, but it was crowded that way to the top of Capitol Hill, and at 11 o'clock at night. We nearly froze while waiting for the car. I should say that there were more than 50 people on the car. And I would like to know when these rush hours begin if they do not end until 11 o'clock at night.

Mr. DUNLOP. Those were theater passengers.

Mr. SIMS. I challenge that statement. When the car came from the direction of Georgetown it was so jammed that you would have to crowd to get into it. If there are any theaters out toward Georgetown I have never heard of them.

Mr. OLCOTT. Was there not another car closely following?

Mr. SIMS. I did not look to see. But we waited for something over ten minutes by the watch, and we got out of the theater at 11 o'clock. We got away from there at 11.15. The car was jammed when it came along. And I have seen the same thing on the Fourteenth street car line, in riding from here to Thomas circle, the car being so jammed that when the conductor came through he would nearly tear the clothes off of the people collecting his fares. And I think that is common knowledge to everybody in this city.

Mr. DUNLOP. Between the Fifteenth street junction and the Peace Monument, between the hours of half past 4 and 6 o'clock, the service is just a little under half a minute. In the morning, between 8 o'clock and 9 o'clock, it is a half-minute service. The regular service during the twenty hours in the day is two minutes on each line.

Mr. CAMPBELL. Do you try to give extra service at the close of the theaters?

Mr. DUNLOP. We do. We bank the cars to obviate the crowding of them.

Mr. SIMS. But this car arrived so jammed that there was no room to get in.

Mr. DUNLOP. I have no doubt that what you say is true, but how can you prevent that, because the people will always get into the first car even if there is another right behind.

Mr. SIMS. Can not you put on more cars at that time of night?

Mr. DUNLOP. I was not aware of the situation last night, but if the cars were running more than two minutes apart on Pennsylvania avenue last night before 12 o'clock then there was some accident on the road.

Mr. SIMS. There may have been something that delayed the car; I don't know about that. But it came along jammed.

Mr. DUNLOP. Nobody could prevent accidents. And I would like to have this committee investigate and see whether I do not state the truth when I say that after and before office hours the service on Pennsylvania avenue is a half-minute service, in trains, too, not cars. It is really a little under half a minute. And I would like also to say that there is a police regulation that we shall not run these cars within 100 feet of each other.

Mr. TAYLOR. You could not do that with safety.

Mr. DUNLOP. You could not get them around the junction at Fifteenth street. They are held back there now. If you will go there at 5 o'clock in the evening you will see the cars stopping in front of the Riggs House before they can get up to the junction, and they are so close together that they can not get to the junction.

Mr. KLINE. I will corroborate you in that.

Mr. DUNLOP. We can not prevent the people getting on the first car that comes along. They will do that in spite of everything.

Mr. OYSTER. I will not attempt to enumerate the grievances that we have at Petworth, at the end of the Brightwood line. We go out on the Ninth Street line and then take the Brightwood line. These cars run every five minutes, and frequently I have had the experience that Mr. Sims has had, of standing out on the corner waiting probably ten minutes, and sometimes fifteen minutes, with no cars coming along. Finally we will see them coming over the hill to Petworth and Brightwood, three or four in a row and about 100 feet apart. They come rushing down here, and several cars will rush by you and will not stop at all, compelling the people to stand and wait for the others.

Mr. CAMPBELL. Would that be on account of an accident?

Mr. OYSTER. That is probably on account of mismanagement and poor rolling stock, as well as lack of power and other things that ought to be remedied in a city that is supposed to be the best governed of any city in the United States, and where everything is supposed to

be done just as it ought to be. I think it is partly mismanagement. I will not say that it is mismanaged on the part of my friend General Harries, because I think the General would do better if his board of directors were as generous to him as they are to the president of the other railroad company, which has much better service in every way.

Mr. TAYLOR. They have not anything like the mileage, either.

Mr. OYSTER. But I refer to the rolling stock and the service of employees. Take the loop out here, where they are changing employees all the time. They do not get the run of things. They do not know how to manipulate their electric cars and the system so as to give as good service as they might if they had better employees.

Let me tell you the experience of a lady that went out sick from one of the Departments the other day. She got to the head of Seventh street and there were no cars there at all, and she waited outside a while. She was very sick. Finally she went into the so-called waiting room out there. It was as cold as blazes. They have never put a stove in there. They had a stovepipe hole, but they have not put any stove there, and it is worse inside there than outside. That is another one of the grievances we have. But the real grievance is, Mr. Chairman, that we need a through service to the District line. That is what we ought to have. That is what we are entitled to. The population in that part of the city has increased so enormously that really the city has extended as far out as Petworth—built up on both sides of the road. There are thousands and thousands of people out there that were not there a few years ago.

(The committee thereupon went into executive session, after which it adjourned at 12 o'clock noon.)

PUBLIC UTILITY CORPORATIONS IN THE DISTRICT OF COLUMBIA.

THE COMMITTEE ON THE DISTRICT OF COLUMBIA, HOUSE OF REPRESENTATIVES, *Wednesday, February 6, 1907.*

The committee met at 10.25 o'clock a. m., Hon. Joseph W. Babcock (chairman) in the chair.

The CHAIRMAN. At the last hearing of the committee the time was practically all taken by the friends of the proposed measures relating to gas and street-car lines, and the meeting this morning was called to give those opposed an opportunity to be heard. The chair would like to know whether you have made any arrangements as to who shall go ahead?

General HARRIES. We have not made any arrangements, Mr. Chairman.

The CHAIRMAN. Mr. Goldsborough, are you ready to go ahead?

Mr. GOLDSBOROUGH. If what is to be said on the other side has been exhausted.

The CHAIRMAN. The time this morning belongs to those in opposition to the bill. Those favoring the bill had the time at the meeting before, and if you gentlemen do not want to use the time I suppose that it can be occupied.

STATEMENT OF MR. HOPEWELL H. DARNEILLE.

Mr. DARNEILLE. I have been for the past seven years assessor of the District of Columbia, up to December 31 last, when I resigned. I appear here this morning as a matter of equity in opposition to this proposed reduction of the rate for gas. I do not own one cent's worth of gas stock; am not in the pay of the gas company, never have been, and never expect to be, but they are furnishing pretty good gas, and I think the dollar rate is pretty cheap, and I notice that the court in Chicago knocked out the proposition for 75-cent gas there, and the United States Supreme Court framed the decision which put the rate back to a dollar. As to the people who are in favor of this 75-cent gas, if I thought they were sincerely at heart in favor of it in the interests of the people, I would not make any objection to the bill, but they are the people who furnish us with the necessities of life—coal, meat, butter, eggs, and all the other necessities of life—and you never hear of them trying to put down the price of any of the necessities of life or the things that they have to sell, and I think that it is a gross injustice that they should be the ones to favor a reduction in the price of gas when it is good gas. Labor at this time is higher than it has been; it is one-third higher than it was several years ago. All things that go to the laying of gas mains in the city are about one-third higher, and the persons who are favoring this bill are those who would not take 1 cent off of bread, 1 cent off of meat, 1 cent off of butter, 1 cent off of eggs, 1 cent off of coal, or anything that goes to make gas, and I do not think that they have any right to come before this committee and ask for cheaper gas. It is only as a matter of equity that I am here before this committee.

Another thing, it will take off about one-fourth of the revenues that will be derived by the District of Columbia in taxes from the gas company. It means fifteen or sixteen thousand dollars, which is quite a big item, coupled with the fact that the United States puts up half what we raise. They put up dollar for dollar.

The CHAIRMAN. Mr. Darneille, were you a resident in Washington when the law making the price of gas \$1 went into effect?

Mr. DARNEILLE. I have been a resident here for thirty-three years. I could not tell you exactly when that law went into effect. I think I was—

The CHAIRMAN. Mr. Goldsborough, I would like to know when that law went into effect.

Mr. GOLDSBOROUGH. In 1896.

The CHAIRMAN. No; that was \$1.10.

Mr. GOLDSBOROUGH. The law was passed in 1896. It was reduced in 1901. There was a five years' constant reduction, and then in 1901 it went into effect at a dollar.

Mr. SIMS. If Mr. Darneille is through with his statement in chief, I will ask him a few questions.

The CHAIRMAN. Very well.

Mr. SIMS. Are you an expert in the knowledge of laying gas mains and operating a gas company?

Mr. DARNEILLE. No, sir; I am not.

Mr. SIMS. Do you know what it costs to lay gas mains?

Mr. DARNEILLE. I know that the cost of material has increased about one-third. I have found that out from the experts.

Mr. SIMS. Have you ever had anything to do with laying gas mains?

Mr. DARNEILLE. No, sir.

Mr. SIMS. Have you ever had anything to do with the manufacture of gas?

Mr. DARNEILLE. No, sir.

Mr. SIMS. Do you know whether it can be manufactured cheaper than it is, or not?

Mr. DARNEILLE. No, sir; I no not.

Mr. SIMS. You are simply coming here to object to the reduction of the price of gas because some persons who want it do not reduce the price of eggs?

Mr. DARNEILLE. Not eggs, but the foodstuffs and other commodities affecting the general price of living; and not only that, but the District revenues will be depleted one-fourth, as compared with what they are to-day.

Mr. SIMS. Are you a large taxpayer?

Mr. DARNEILLE. I pay my share.

Mr. SIMS. What is your share, if it is not objectionable?

Mr. DARNEILLE. Two or three hundred dollars a year.

Mr. SIMS. Would this bill reducing the price of gas reduce the taxes of the gas company?

Mr. DARNEILLE. I think it would reduce the revenue of the District one-fourth, or twelve or fifteen thousand dollars.

Mr. SIMS. That is by the reduction of the gross receipts?

Mr. DARNEILLE. Yes.

Mr. SIMS. I will ask you what is the value of the gas plant here, all the tangible property?

Mr. DARNEILLE. I think it is about seven or eight millions.

Mr. SIMS. Do you know how many miles of main they have; can you give a detailed statement?

Mr. DARNEILLE. No; I haven't the details.

Mr. SIMS. How do you arrive at your knowledge that it is seven or eight millions?

Mr. DARNEILLE. From records we had when I was assessor; I know what we had on the books.

Mr. SIMS. What amount of taxes are they paying now? What is the aggregate on the eight millions?

Mr. DARNEILLE. We charged them on the total amount they received in a year.

Mr. SIMS. How many thousand dollars do they pay per annum now, or how many hundred thousand dollars?

Mr. DARNEILLE. I think it is about fifty or sixty thousand dollars.

Mr. GOLDSBOROUGH. Over \$100,000—the total tax?

Mr. SIMS. I mean by reason of this 5 per cent tax?

Mr. DARNEILLE. About forty or fifty thousand dollars.

Mr. SIMS. Then you say it is \$100,000 in all?

Mr. DARNEILLE. Yes, sir; I think so.

Mr. SIMS. How much is that \$100,000 on eight millions of value?

The CHAIRMAN. Mr. Sims, I think it is a matter of record, and I think the statement of Mr. Darneille ought to be corrected. I understand the gross earnings here to be \$1,800,000, and they pay 5 per cent on that. The detailed statement of the company is before the committee.

Mr. SIMS. The gentleman has come here as a witness in behalf of the company, and I supposed he knew all that was necessary to be known.

Mr. DARNEILLE. I said I do not know.

Mr. SIMS. What I am trying to find out is how the gas company is taxed in comparison with the property tax of private individuals.

Mr. DARNEILLE. It pays 5 per cent of gross earnings on every cent received, besides its real-estate tax.

Mr. SIMS. What does it amount to per hundred thousand?

Mr. DARNEILLE. I could not tell you that.

Mr. SIMS. You told me the property amounted to seven or eight millions.

Mr. DARNEILLE. I thought so; I am not certain of it.

Mr. SIMS. You have been assessor; haven't you some idea of that?

Mr. DARNEILLE. I have been out since the 31st of December, and I don't know what the returns are.

Mr. SIMS. The tax on real estate is \$1.50?

Mr. DARNEILLE. Yes, sir.

Mr. SIMS. What would be the tax on eight millions of real estate; what would be the gross amount paid?

Mr. DARNEILLE. One hundred and twenty thousand dollars.

Mr. SIMS. On \$8,000,000 at \$1.50 a hundred it would be \$120,000?

Mr. DARNEILLE. Yes.

Mr. SIMS. Fifteen thousand dollars a million, would it not?

Mr. DARNEILLE. No; \$15 a thousand.

Mr. SIMS. Mr. Darneille does not seem to be ready with his answers, and I do not care to ask him if he does not know.

Mr. DARNEILLE. I do not—about those things.

Mr. SIMS. I wanted to get a comparison of the taxes paid by this company with those paid on real estate by individuals.

Mr. DARNEILLE. They pay exactly the same ratio on their real estate.

Mr. SIMS. I want to see what the 5 per cent of tax on seven or eight millions amounts to, so as to get some idea of the relative tax burden that they bear in comparison with private individuals and other species of property. That is all I wanted to ask.

STATEMENT OF A. K. KINNAN, PRESIDENT BROOKLAND CITIZENS' ASSOCIATION.

Mr. KINNAN. Mr. Chairman, we have canvassed this gas matter—

The CHAIRMAN. I beg your pardon, sir; what do you wish to speak to?

Mr. KINNAN. I can not say whether it is in opposition to the bill or in favor of the bill; our position on that point I will briefly state. We have no means of knowing what it costs to make this gas. This gas company is a monopoly; no competition enters in to bring down the price of gas. It must, therefore, be left in the hands of the authorities to see how much this gas costs. It is a public utility and a public necessity. We must have it. We do not want any action taken that is going to necessitate cheaper gas, or anything else that will injure the company. So we do not want to say that

we are in favor of the gas bill at 75 cents, or that we are opposed to it. What we do want to say is that we want the authorities to investigate and find out what it does cost, and we think the thing that ought to be insisted upon more than anything else is a public inspection, or the power to publicly inspect all of the company's business, so that we can know the actual cost. If it costs nearly a dollar to make the gas we would not want to see it reduced, but if they can sell it at 75 or 80 cents and still make a legitimate profit then we would like to get it for whatever we can. But there is no competition to bring the price down, and we have to depend upon you to find out for us what it can be made for and sold for legitimately, and make the price accordingly.

The CHAIRMAN. Just one question before you sit down. May I ask if you favor the proposition in the bill introduced by Mr. Morrell, of Pennsylvania, for a commission to take up the question of electric lighting, telephones, street-car fares, and price of gas, the commission to be appointed at this Congress and make a report as to the cost of carrying passengers, cost of service of telephones, and electric lighting and gas lighting, and report at the next session?

Mr. KINNAN. Yes; that is the only way I see to go at this proposition.

Mr. MORRELL. I would like to say that when that resolution comes up for discussion I propose to amend it so that it will be a request to the Bureau of Corporations to look into these matters of public utilities and to report to the next Congress. They have the machinery already in their hands, and I think we would probably get better and more complete results by having these matters of public utilities referred to the Bureau of Corporations.

Mr. KINNAN. We think that that is a good thing to do. It is the only way to do. People who come here and favor or oppose 75-cent gas without knowing what they are talking about are not doing right. There is only one way to get at it; and that is to find out the cost, and for those in authority or the monopoly to fix the price for us accordingly.

The CHAIRMAN. It is understood that only those in opposition to the bills are to be heard this morning. Of course, if they do not want to use the time, there are others here who I suppose will use it. The committee desires to divide the time equally between those opposed and those in favor of the proposition.

STATEMENT OF MR. RICHARD H. GOLDSBOROUGH.

Mr. GOLDSBOROUGH. Mr. Chairman and gentlemen of the committee:

The statement which has been submitted to the committee on behalf of the gas company, sworn to by its secretary and certified by an independent accountant, will show precisely to the thousandth part of a cent what it cost the company to make gas last year. What I propose to say to you this morning is rather along general lines, and particularly the lines of argument presented to the committee by the distinguished author of this bill when before you on Thursday.

I must confess at the outset that I feel sincerely grateful to the author of this bill for the fair, frank, and straightforward way in which he advocated it here before you on Thursday last. Differing with him

as to the facts, the fundamental legal and equitable principles upon which he stands seem to me, so far as our case is concerned at least, to be unassailable. For, if I understood him aright, he planted himself squarely upon this proposition: That every public utility stands upon all fours with every other public utility in this, that all should enjoy equal privileges as to profits and share equal burdens as to taxation; that each should have the right, as to permissible profits, to charge the public such a price for its services as will guarantee to it a reasonable return upon the fair value of its property, and that none should be allowed to charge the public more for its product or services than they are reasonably worth. This is not only good common sense, but it is good common law—the law of the land, in fact—and whether the honorable Member from Chicago is aware of it or not (I understand he is not a lawyer), is in the very language, as many of you know, of the decision of the Supreme Court of the United States in the great case of *Smith v. Ames*, wherein Justice Harlan, rendering the opinion of the court, broadly formulates this doctrine:

We hold that the basis of all calculations as to reasonableness of rates to be charged by a corporation * * * under regulation sanction must be the fair value of the property being used by it for the convenience of the public. And in order to ascertain that value, the original construction, the amount expended in permanent improvements, the amount and market value of its stock and bonds, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, are all matters for consideration, and are to be given such weight as may be just and right in each case.

What the company is entitled to ask is a fair return for that which it employs for the public use.

On the other hand, what the public is entitled to demand is that no more be exacted from it than the services rendered are reasonably worth.

So far as we are concerned, we believe that is the law, and we stand upon that law here.

There is therefore no difference between us and the author of this bill upon the principles involved in it until he begins to apply them to this particular case. Then, unconsciously, no doubt, he immediately strays from the straight legal path he himself a little while before delineated to argue to you in all seriousness that because our bonded debt (\$3,000,000 in round numbers) is unusually low and the Chicago bonded debt (\$60,000,000) is abnormally high we ought to be able to make and sell and should be required to make and sell here gas of a much higher quality for a materially lower price. Now, let us look at this contention dispassionately for a moment, as a legal proposition, aside and apart from the multitude of circumstances which we think clearly differentiate these cases in other particulars. What has the bonded debt or the stock liability, for that matter, of either concern to do with the price which either the one or the other ought to be permitted to charge the public for its product?

The law says both of them are entitled to fair returns upon the fair value of their property; or in other words, upon the actual capitalization involved, irrespective of what the paper capitalization may be—whether it be greater or less. Is an apartment house of the actual market value of, say, \$50,000 worth any more or worth less because it happens to be mortgaged for half its real value or for two or three times its real value? If it were unlawful for any landlord to exact of any tenant a yearly rental of more than, say, 10 per cent

of the value of the premises leased, would the fact that it was mortgaged for all or more than it was worth entitle him to any higher rate of rent? The bare statement of the case discloses its weakness. So in this one. The paper capitalization, no matter how great it may be, can not enlarge, and no matter how small it may be, can not diminish the owner's right to fair and reasonable returns upon the value of the property used for the convenience of the public. If the Chicago bonded debt was a billion of dollars and our bonded debt not one red cent, the rights of the owners and the equities of the public would remain absolutely the same as if the conditions of the two companies in this respect were precisely identical. I will even go so far as to say that if either of them had no paper capitalization whatever (the census of 1900, by the way, shows that there are a number of such cases in this country) the owner or owners would be fully protected at law and in equity by the same just rule guaranteeing to him or to them equal rights—rights undiminished by want of paper capitalization—to fair and reasonable returns.

Now, I submit, Mr. Chairman, if Mr. Madden's original premise is good, as I think I have conclusively shown it to be, that the company is entitled to fair returns upon the fair value of its property as it stands to-day, what pertinency has the statement that it has been continuously prosperous for the last fifty years, and that during that time has declared many large dividends? It would be hardly worth while to stop to consider that proposition but for the fact that the inferences sought to be drawn from it are misleading and unfair and derogatory to many good names inseparably associated with the financial growth, progress, and prosperity of the city of Washington.

I put it squarely to you, gentlemen of the committee, particularly to those of you who are familiar with our local conditions and traditions, whether it would not be fair and reasonable and right to ascribe a material part of this company's success to the high credit, the business abilities, and the conservative yet progressive policies of the men who have managed its affairs—of such men as Ulysses Ward, George W. Riggs, W. W. Corcoran, John C. Bullit, George McIlhenny, Charles C. Glover, and many others of high repute who have in the past contributed both directly and indirectly to its successful operation.

Is it too much to claim that if all the fruits of the initiative and endeavor of these men who so signally succeeded in wisely managing their own affairs as well as the affairs intrusted to their keeping, were truly capitalized, the company's indebtedness to them would account for a large part of its prosperity? To the sagacity of these men the company owes the wise policy—the traditional policy which it ever strives to maintain—of buying the best, buying in large units, anticipating and discounting future requirements, maintaining ample stores and reserves to guard against accidents and the vicissitudes of trade conditions and wide fluctuations in the market for raw materials. The late great coal strike affords a shining example of the wisdom of such a policy. It found this company with more than six months' supplies on hand, and thus not only relieved of the necessity of paying unheard of prices for coal and oil, as every other company on the Atlantic seaboard had to do, but enabled to go right along as if nothing had happened, furnishing our people regularly with coke without advancing, as it had the legal right to do, the price by so much as one farthing, so that while the poor in neighboring cities

had to pay from 2 to 500 per cent more for their daily fuel, none who applied to our yards for it failed to get it at the old price. Indeed, in thousands of instances they got it without price.

Again, does not the committee think the corporate person is entitled to enjoy, with the private person, a fair share, at least, of the increment accruing from the growth of the city, the prosperity of the times, the enhanced value of real estate, and from the good fortune of those who builded not only wisely but wiser than they knew?

It is unnecessary to pursue this matter at length, for we all know that if the \$425,000 of capital invested in this company in 1851, after the disastrous failure of its so-called solar gas system in that year—if that sum had been invested in northwest Washington real estate, what a wonderful increase it would have enjoyed. But this is a digression, for whether the fruits of good management or of good fortune should or should not be taken into the account, it is not alleged that the value of the company's property has increased otherwise than according to law. The issue before you, therefore (unobscured by animadversion), remains where the law clearly puts it and resolves itself into three questions:

1. What is the fair value of the company's property?
2. What rate of profit would constitute a fair return in this case?
3. Will the prices named in this bill enable the company to realize such a rate of profit?

Of the methods which have been employed to measure fair value, the three most universally approved are available in this case, viz:

First. The measure of taxation. This company pays in cash taxes exceeding \$100,000 a year, which represents a value if assessed as real estate of over \$10,000,000.

That is the exact answer to the question which the gentleman from Tennessee propounded to the gentleman who preceded me in this discussion.

Mr. SIMS. Colonel, do you remember how much of that comes from the 5 per cent on the gross earnings?

Mr. GOLDSBOROUGH. I think about \$80,000, and I believe the exact amount of taxes show by the statement there is over \$110,000.

Mr. SIMS. The other is on the real estate only?

Mr. GOLDSBOROUGH. On the real estate; yes, sir.

Mr. SIMS. Does the company own any real estate except that necessary in the performance of their duties?

Mr. GOLDSBOROUGH. No, sir.

Mr. SIMS. You do not own any as a mere investment?

Mr. GOLDSBOROUGH. No, sir; but there is a large amount of real estate necessary.

The CHAIRMAN. The total receipts you got from sales of gas for the year ending December 31, 1906, were \$1,799,115.38. The total taxes paid to the collector of the District of Columbia were \$103,820.42, and about \$10,000 for water—

Mr. GOLDSBOROUGH. And inspection.

The CHAIRMAN. Inspector of gas and meters and District inspector of plumbing.

Mr. SIMS. How much of that comes from the 5 per cent?

The CHAIRMAN. About \$80,000; 5 per cent on the receipts from sales of gas.

Mr. SIMS. I want to ask Mr. Goldsborough why one public service

corporation pays one rate on gross receipts and another a different rate on gross receipts. In other words, the street car companies pay 4 per cent and the gas companies 5 per cent; is there any special reason why it should be that way?

Mr. GOLDSBOROUGH. I think not; I know of none. The gas company pays 5 per cent and all the other public utility corporations pay 4.

Mr. SIMS. And they all pay alike on real estate?

Mr. GOLDSBOROUGH. Yes; they all pay alike on real estate; I think that the 4 per cent tax was imposed many years ago; indeed, by the charters of a good many of the companies.

To come back to the taxation problem. Of course the taxation of 5 per cent is a tax on values. It represents a large part of the whole amount of the taxes—represents what is supposed to be a reasonable tax upon the value of the property of the company and incidentally of its franchise; that is the theory of it.

Mr. SIMS. In that connection, it was denied here the other day by General HARRIES, I believe, that the franchise had any value in District corporations on account of the repeal clause. What have you to say about that, whether the franchise has any value in this District or not?

Mr. GOLDSBOROUGH. I think it has; I am quite sure it has in this case.

Mr. SIMS. You do not think, then, that providing that they may be repealed at any time destroys all value of the franchise?

Mr. GOLDSBOROUGH. Not at all.

General HARRIES. If there is no objection, I would like to touch upon that for a moment. There is misapprehension with respect to what I said last week. My statement was intended to be this, and I think was, in spirit, that the repeal clause does most seriously detract from the value of franchises, and that the clause in question in conjunction with these continual attacks—these unreasonable attacks—that were not based on law or equity or logic, were things that frightened investors more than anything else, and that when these attacks were seriously considered by committees of Congress, when the assaults seemed to have a status, then you menaced any attempt that might be made to prove that the franchises here had any value.

Mr. SIMS. I understood you to say that the franchises in the District of Columbia had no value. I controverted it at once and asked you if that was an unfair statement, and you persisted in it.

General HARRIES. What I wanted to make clear was that it was not wholly due to the altering, amending, or repealing clause, although that is a serious matter.

The CHAIRMAN. Mr. Sims, with reference to that I will say that that clause has been discussed a good many times by this committee and on the floor of the House, and I understand that the courts have decided that Congress has the same right to alter, amend, or repeal a bill whether it has that clause in it or not.

Mr. SIMS. I think there is no doubt about that.

The CHAIRMAN. It is put in there only as a notice that Congress reserves that right. Of course the courts give it without placing it in the bill.

Mr. SIMS. In other words, Congress grants the charter without consideration, and in consequence it could resume at any time and intervene.

The CHAIRMAN. I understand the courts have so decided.

Mr. SIMS. I just wanted to hear what Mr. Goldsborough had to say about it—whether franchises in the District of Columbia were worth anything or not.

Mr. GOLDSBOROUGH. I think undoubtedly they are of value and many of them of great value.

To return to my argument, the second method of measuring the fair value of the property of a public-utility corporation is the average market value of its securities for a term of years—we will say, in this case, for the last three years—which reflects the public appraisement of its property, and that exceeds \$11,000,000.

Mr. SIMS. In this particular case?

Mr. GOLDSBOROUGH. In this particular case.

Mr. SIMS. What is the capital stock?

Mr. GOLDSBOROUGH. \$2,600,000.

Mr. SIMS. And what is it selling at?

Mr. GOLDSBOROUGH. The average for the three years is over \$60 a share.

Mr. SIMS. Call it \$60 for the purpose of calculation.

Mr. GOLDSBOROUGH. Yes; call it \$60.

Mr. SIMS. Or three for one?

Mr. GOLDSBOROUGH. Three for one. Then the \$3,200,000 of bonds.

Mr. SIMS. That is what I wanted to ask you about. I have never heard anybody say who perhaps knew anything about it, but it has often been talked about in a general way, that the \$3,200,000 of certificates of indebtedness are really not bonds, and represent no investment, but simply were given out instead of paying that amount as a dividend. In other words, it was money accumulated in the treasury of the company.

Mr. GOLDSBOROUGH. They are, in essence, bonds. They were called certificates of indebtedness because they were issued to the stockholders upon the theory that the company owed the stockholders that amount of money for earnings that had been diverted from the stockholders; that had been diverted from dividends into betterments.

Mr. SIMS. It is practically a dividend, then?

Mr. GOLDSBOROUGH. Practically, yes. It is practically a dividend. It is an accumulation of dividends, and of those dividends compounded in process of time.

Mr. SIMS. It is practically a stock dividend?

Mr. GOLDSBOROUGH. No; not a stock dividend.

Mr. SIMS. I mean if they had issued \$3,200,000 in stock.

Mr. GOLDSBOROUGH. They would have added to the stock liability by that amount.

Mr. SIMS. Or shares by three to one, in the same ratio. I mean, if you had issued shares to have amounted to that much money, at three to one, so as to make it harmonize with the stock out, it would have practically amounted to that?

Mr. GOLDSBOROUGH. Yes, sir.

Mr. SIMS. What is the interest paid on that?

Mr. GOLDSBOROUGH. Part of it is 4 per cent and part of it 6.

Mr. SIMS. What part?

Mr. GOLDSBOROUGH. I think 4 per cent on \$600,000, and I think 6 per cent on the balance; the average is 5 per cent.

Mr. SIMS. Then the \$3,200,000 was not paid by the stockholders from outside enterprises into the company?

Mr. GOLDSBOROUGH. I am now speaking only of the \$2,600,000. That was declared as a dividend due by the corporation to the stockholders.

Mr. SIMS. What were the cash holdings of the company at that time, if you remember, Colonel?

Mr. GOLDSBOROUGH. The cash holdings?

Mr. SIMS. The cash on hand?

Mr. GOLDSBOROUGH. I do not know.

Mr. SIMS. Could you furnish that with your statement later on?

Mr. GOLDSBOROUGH. I could.

Mr. SIMS. At the time the certificates for \$2,600,000 were issued?

Mr. GOLDSBOROUGH. I may say this, I know that the cash on hand was not a large sum.

Mr. SIMS. I suppose you can find out and put it in.

Mr. GOLDSBOROUGH. I can find out, certainly.

Mr. MEYER. Were not those certificates of indebtedness issued subsequent to an effort on the part of the gas company to have an increase in the capital stock of the company? That is, the company desired to increase its capital stock by reason of its surplus, and failing to secure the legislation to provide for that they took this means of rewarding the stockholders for the increased value of their stock?

Mr. GOLDSBOROUGH. I may say to the gentleman that prior to the time of the issue of these bonds there was a bill introduced for the purpose of increasing the capitalization of the company to the actual value of its plant.

Mr. SIMS. Market value?

Mr. GOLDSBOROUGH. Yes, the actual value—the actual cash value. The market value of the stock as determined by daily sales for a certain period.

Mr. MEYER. Was not this issue made to circumvent—I use the word without any reflection—to circumvent the defeat of the purpose which had failed to issue stock for the surplus amount?

Mr. GOLDSBOROUGH. No, sir; the company considered that this dividend, the property it represented, belonged to the stockholders, and that they were entitled to have it, and that the issuance of it would not affect, and we claim that it does not affect, and ought not to affect, directly or indirectly, the price of gas charged to the people of the District of Columbia. Our position is this: Whether we are capitalized for \$10,000,000 or \$1,000,000, we are not authorized to charge more than a reasonable return—a fair return—upon the actual value of the property, unless that capitalization, in point of fact, is equal to the value of the property. Whether overcapitalized on paper, or undercapitalized, does not affect our right to fair returns in the least. If we had no paper capitalization at all, what we think we could reasonably and equitably claim here and before the courts is a fair return upon the actual value of the property which we are using for the public convenience. —

Mr. SIMS. Let me ask you in that connection what is the purpose of keeping those certificates of indebtedness outstanding? For what time do they run?

Mr. GOLDSBOROUGH. I think they run for twenty years.

Mr. SIMS. Why did the company, having good receipts, want to make it that long at those high rates of interest?

Mr. GOLDSBOROUGH. I believe they are 5-20's; they are payable in five years or, at the convenience of the company, may run twenty years.

Mr. SIMS. Is there not, as a matter of fact, added to the dividends the interest paid to the stockholders on these certificates every year, without their having added anything from outside sources to the resources of the company?

Mr. GOLDSBOROUGH. Of course the company has to pay interest on those certificates in addition to the dividends.

Mr. SIMS. The bonds were issued to the stockholders?

Mr. GOLDSBOROUGH. They were issued to the stockholders; but they are public securities and negotiable and, like the stock, pass from hand to hand.

Mr. SIMS. In other words, you pay the dividend that you paid before and then the interest on this, in addition, to the stockholders?

Mr. GOLDSBOROUGH. Yes; to the owners, whoever they are, undoubtedly. But those dividends and this interest, neither of them figure at all in the operating expenses of this company. The statement shows that independent of that indebtedness and independent of interest and all capital charges the actual cost for labor and materials used in the production of gas exceeds 66 cents per thousand cubic feet.

Mr. SIMS. Is there anything in the law or charter to prevent this company from continuing to issue these certificates in any amount that it may see proper?

Mr. GOLDSBOROUGH. Not at all.

Mr. SIMS. Adding to those they already have?

Mr. GOLDSBOROUGH. Yes, sir.

Mr. SIMS. And paying such a rate of interest on them as they already have?

Mr. GOLDSBOROUGH. Not at all; that is a common-law right, which I don't believe can be taken away from them.

Mr. SIMS. But in fixing the price of gas you do not mean to say that it would be unnecessary to look at that item of expense?

Mr. GOLDSBOROUGH. I do most assuredly; if it was thousands of millions of dollars it would not entitle the company to charge one mill more for its gas than it was reasonably worth. And I want to call the gentleman's attention to the fact that it was decided in the great case known as the Covington case that whether a public service corporation could pay dividends or not, or whether it could pay the interest on the bonds or not, was not a pertinent matter.

Mr. SIMS. Made no difference?

Mr. GOLDSBOROUGH. Made no difference; that they could not charge the public more than the service was reasonably worth, although they had to go into the hands of a receiver the next day. You will remember that was a turnpike case. So that whether this company or the Chicago company is capitalized for too much or too little—

Mr. SIMS. Bonded for too much or too little?

Mr. GOLDSBOROUGH. Bonded for too much or too little does not affect the issues we are here to try, which is what is the fair value of this property, and what would be a fair return on that value.

Mr. SIMS. If the stock was \$10,000 and the property was worth \$10,000,000—I intended to bring the bulletin with me, but I haven't it here.

Mr. GOLDSBOROUGH. We would be entitled to the same return.

Mr. SIMS. The \$10,000,000 should be considered and not the \$10,000?

Mr. GOLDSBOROUGH. Yes. The census shows that there are a number of companies which are not at all capitalized. I intended to bring the bulletin with me, but I haven't it here.

Mr. SIMS. Let me ask you if the pertinent inquiry here is not to ask what it costs to make and distribute gas?

Mr. GOLDSBOROUGH. Yes, sir. What it costs, and whether the profit, the admitted, or rather shown, profit is, under the circumstances, a reasonable one, considering the value of the property used to produce it. I am going to follow the author of this bill on that subject, and I think the line of his argument was a very conclusive one.

Mr. SIMS. I will say, Mr. Goldsborough, I have absolutely no knowledge of the manufacture of gas or of the distribution or cost of it. The questions I ask on that subject are intended for my own enlightenment. I do not know anything about it.

Mr. GOLDSBOROUGH. I am very glad to answer the gentleman, or any gentleman, any question that he will propound to me.

Taking up now again the methods of determining the fair value, the third rule relied on by Mr. Madden, and formally stated, is as follows:

Multiply the gross amount of the revenue produced by the average amount as established by statistics of cash capital required to produce a dollar's worth and the result will be substantially right.

Applying this rule to this case, Mr. Madden said that the amount of capitalization required in this country varied from \$3 per thousand to \$5 per thousand cubic feet, and that he thought \$4 per thousand would be about right in Chicago. Now, I beg to call your attention in this connection to two things: First, that our case is wholly different from that in Chicago, and second, that Mr. Madden is entirely mistaken, as I propose to clearly prove to you, in his estimate as to the average amount of capital required in this country to produce a dollar's worth of gas.

Comparing conditions here and in Chicago, I beg to call your attention to the following facts:

1. Chicago has a much denser population, and the mains there supply fully twice as many customers per mile with gas.

2. It is not nearly so expensive to lay mains and service there because it has comparatively but little asphalt and concrete pavement.

3. Being a manufacturing city, there is greater uniformity between day and night and summer and winter loads.

That is very important. They have large manufacturing, and they have a ready market all the year around, and they have a day market as well as a night market for gas. We have it only at night, and the heating load is in the winter time. In the summer it is comparatively small.

4. Chicago manufactures upon an enormously larger scale than is done here and the quality is not so good.

5. And finally, the Chicago companies do not make their own coal gas but buy it from the coke-oven companies, who are glad to sell it, it being a by-product with them, very cheap. All the Chicago company does is to enrich this coke-oven gas with water gas—and, by the way, this is done in Baltimore, our neighboring city, and I believe it is also done in Boston.

It must be obvious to you, gentlemen of the committee, that Chicago is not in our class or we not in hers, in this respect, and that if it takes \$4 worth of capital there to produce a dollar's worth of gas, it is fair to assume that it would cost half as much more, say \$6, to produce the same result here. And if the Government census returns are to be relied upon, that is a minimum figure. I have here, and invite your attention to, the Census Bulletin on gas issued January 3, 1902, No. 123, page 8:

These figures do not represent the capital stock of the establishments engaged in the manufacture of gas, but they stand for the actual value of the plants, together with the amount necessary for working capital. The returns indicate that to produce \$1 of gross product required \$3.47 of capital in 1850, \$2.40 in 1860, \$2.24 in 1870, \$4.54 in 1890, and \$7.49 in 1900.

That represents the increase in the cost of materials and of processes and labor since the time when this company was started down to the year 1900, as shown by the census returns, as an average of all the gas-making establishments in this country.

MR. SMITH. My attention has been called to two or three cities in the country where the gas has been reduced, but the gas bills do not seem to be reduced, and they explain that it is on account of some method of pressure. I do not know anything about this gas business, but I would like to have you explain that, if you can.

MR. GOLDSBOROUGH. Well, the fact is, that as prices go down the consumption goes up in all commodities. That is to say, when prices are reduced production is stimulated, because when gas or anything else is cheap, the people use more of it in their households; and a further fact is that, of course, since the introduction of electricity and the cheapening of it, the eye is educated to brighter light and to want more light, and I presume that that accounts for the fact, in so far as it is a fact. I have never looked into it and can not therefore say how far it is a fact, but as to the matter of pressure, I know that the pressure in this city is low. In some cities it is much higher. That depends a great deal upon the character of the mains that have been laid. Gas mains, like everything else, get weak as time goes on, and they are not able to stand high pressures. The complaint has frequently been made here that we had not pressure enough, but that is a matter that I myself have not looked into.

MR. SIMS. Mr. Goldsborough, has your company any objection to making annual reports to Congress, as the street-railway companies do?

MR. GOLDSBOROUGH. Not the slightest.

To go back to the census statement, which shows that the average capital required in the year 1900 was \$7.49 and has not diminished any since because the amount of capital has been increasing constantly for the last forty years, as shown by this statement, capitalizing the gross earnings of this company, \$1,800,000, on the average basis of \$7.49 required to produce one dollar's worth of gas, as stated by this Government report, we have an indicated value of over

\$13,000,000. Upon a basis 20 per cent lower than that average, there still remains a value of \$11,000,000, exclusive of the value of everything else. The fair value, then, of the company's property used for the public convenience is at least \$11,000,000, but call it \$10,000,000 for the sake of the argument.

Mr. SIMS. In that connection, what would it cost to reproduce the gas property here in the city at present prices?

Mr. GOLDSBOROUGH. Of course that is a difficult question to answer. The company owns 400 miles of mains in round numbers, and most of them are laid under concrete pavements and asphalt pavements. Of course it has to maintain duplicate plants for the manufacture of gas. It would take a long time to duplicate these plants. The gas holders are immense iron structures, and they would have to be built and all those mains would have to be laid.

Mr. SIMS. I did not expect you to give an exact answer, but just approximately.

Mr. GOLDSBOROUGH. Then the connections would have to be made. We have forty-odd thousand customers, so that it would be very hard to say what it would cost to duplicate, precisely, this plant. But to build a plant and duplicate it and put it in the condition in which this company is to-day, I think might very reasonably be estimated to cost at least \$10,000,000.

The only question that remains, therefore, is what rate of profit would constitute a fair return upon that value. In this connection I call your attention to the fact that there would be no investments in public-service corporations or their securities if the investors had to foot the losses so often incurred, the Government not underwriting any propositions of this kind for so much as a cent, and if they were limited, when successful, to the narrow margin of profit shown by first-class commercial securities. There is no case upon record which I have been able to find where less than 8 per cent returns were considered reasonable and fair. And a glance at the sworn statement submitted by the company here shows that we are making, at present prices, less than 6. If the rule as to the particular allowance for depreciation of plant, as stated by Mr. Madden, is correct, the company is scarcely earning 5 per cent upon the fair value of its plant. Mr. Madden thought a charge of 4 cents for general depreciation and 3 cents for extraordinary depreciation about right. But the fact is that engineers almost universally rate it at a much higher figure.

Finally, Mr. Madden bases the equity of his bill for 75-cent gas upon his belief that gas can be made here for 50 cents and that one-third of the gross earnings is a sufficient profit, and we do not quarrel with him so far as we are concerned about that, and he thinks that is reasonable and fair. That is precisely the proportion of our net earnings to gross earnings, as 50 is to 75, as shown by the sworn and certified statement now before the committee.

Mr. Chairman and gentlemen of the committee, if you have no further questions to ask, I thank you for your very kind attention.

Mr. SIMS. Mr. Goldsborough, I have been asked to ask you this question, which has been written and handed to me:

Why has your consumption of water increased, according to census reports, from 47,000,000 gallons in 1900 to 89,000,000 gallons in 1905?

Mr. GOLDSBOROUGH. In the first place, we manufacture very much more gas than we did. I suppose that the consumption has increased

in five years by 30 to 40 per cent. Mr. McIlhenny can tell you how much it has increased.

Mr. McILHENNY. It has increased about 50 per cent in that time.

Mr. GOLDSBOROUGH. Fifty per cent. That will account for it.

Mr. SIMS. Have you any objection to stating what the salaries of your general officers are? I do not see any statement here. It just says "salaries."

Mr. GOLDSBOROUGH. About \$40,000, I believe.

Mr. SIMS. What?

Mr. GOLDSBOROUGH. The total amount of salaries of the general officers as shown by the statement rendered the Commissioners is \$40,000.

Mr. SIMS. I was just looking. I did not see it on here. Is this the statement that you mean?

The CHAIRMAN. That is the last statement.

Mr. GOLDSBOROUGH. I know. There was a statement submitted, which has been sent here by the Commissioners, in which the summaries were differently made from this statement. This statement was taken from the books after they had been closed. The statement made to the Commissioners was made up on very short notice, before the books had been closed. But that is accurate in every particular, and will show you what the amount is. The total is \$40,000.

Mr. SIMS. How many officers share that?

Mr. GOLDSBOROUGH. I am not prepared to say positively. There are the president and the secretaries and the general heads of departments. It is a matter I have given no attention to.

Mr. SIMS. Haven't you got the general manager? Here is Mr. Hart.

Mr. GOLDSBOROUGH. Mr. Hart is the general manager.

Mr. SIMS. What is the salary of the president?

Mr. GOLDSBOROUGH. The statement which we rendered the Commissioners gave the amount of general salaries—

Mr. SIMS. But what part of the \$40,000 general salaries goes to the president?

Mr. GOLDSBOROUGH. I think the salary of the president is about \$20,000; somewhere in that neighborhood.

Mr. SIMS. How many general officers are there, and what are they?

Mr. GOLDSBOROUGH. There are the president, the secretary, two assistant secretaries, the treasurer, the general manager, and perhaps a chief clerk; I can not say.

Mr. SIMS. Could you not now give a statement of what the salary of each of these is?

Mr. GOLDSBOROUGH. No, sir; I can not.

Mr. SIMS. Does the word "salary" cover all the compensation they receive, of every kind?

Mr. GOLDSBOROUGH. Yes, sir.

Mr. SIMS. I want to ask you this, Mr. Goldsborough. In the nature of things, as the city progresses and increases in size, and the number of gas consumers increases, can you not proportionately furnish the gas cheaper?

Mr. GOLDSBOROUGH. Oh, yes; undoubtedly.

Mr. SIMS. And then in the future, unless conditions change, in a normal way, if you have not yet reached the time when you can reduce the price of gas, you will reach it?

Mr. GOLDSBOROUGH. Undoubtedly; and I would say further that I think, myself, that it is the consensus of opinion of people who have looked into the subject, particularly gas engineers, that maintaining a very high candlepower is a useless expense from the public point of view, as well as from the company's point of view. Some reference has been made here to prices in England, where the candlepower is very low. In London, for instance, it is only about 15.

Mr. SIMS. You make only one kind of gas here?

Mr. GOLDSBOROUGH. We make only one kind of gas here.

Mr. SIMS. And what is the candlepower?

Mr. GOLDSBOROUGH. The candlepower is 22, as required by law; but in point of fact we keep it at 23.

Mr. SIMS. You do more than the law requires?

Mr. GOLDSBOROUGH. Yes.

Mr. SIMS. Is not that candlepower much higher than is required for fuel purposes?

Mr. GOLDSBOROUGH. Oh, yes; it would do at 15 for fuel.

Mr. SIMS. What is the difference in cost of producing between 15 or 16 and your present price?

Mr. GOLDSBOROUGH. It would be considerable. I can not tell you precisely.

Mr. SIMS. Take 15 or 16 candlepower and use the Welsbach burner, what would be the result?

Mr. GOLDSBOROUGH. It would produce practically the same amount of light.

Mr. SIMS. As it does now without it?

Mr. GOLDSBOROUGH. As it does now without it. And the same for heating purposes. It would be slightly less, but the difference would be very, very small.

Mr. SIMS. If the candlepower of the gas you made was 15, and then the purchasers used the Welsbach for lighting purposes—of course they would not be put to that expense for fuel—what would be the general result to the purchaser of gas here, if that was adopted?

Mr. GOLDSBOROUGH. I think that would be the same as it has been found to be abroad, very much more satisfactory.

Mr. SIMS. Better?

Mr. GOLDSBOROUGH. Yes, sir.

Mr. SIMS. Is not the consumption of gas for fuel increasing?

Mr. GOLDSBOROUGH. Very rapidly; yes.

Mr. SIMS. Much more rapidly than for illuminating purposes?

Mr. GOLDSBOROUGH. Yes; it is increasing both for heating purposes and for illuminating purposes.

Mr. SIMS. But the percentage of increase on heating is perhaps greater, is it not?

Mr. GOLDSBOROUGH. I think it is.

Mr. SIMS. These apartment houses are using it almost altogether for fuel?

Mr. GOLDSBOROUGH. Yes, sir.

Mr. SIMS. For heating purposes?

Mr. GOLDSBOROUGH. Very largely.

STATEMENT OF MR. W. J. LAMBERT.

Mr. CHAIRMAN: I am here representing the Brightwood Citizens' Association, and also in reference to the resolutions that were passed by the Business Men's Association in regard to this bill. The position they take is that, while the citizens of the District of course want whatever they can get in the way of a reduction in the price of gas, they do not want Congress to take a step which will reduce the cost to such an extent as will allow an unfair profit to the gas company.

I am not going to elaborate on anything that has been said, but simply to make a suggestion to the committee which I think is a pertinent one in that connection. So far as my knowledge extends, in recent years there has been only one instance of this kind before this committee, and that was the contest in regard to the reduction of telephone rates. Mr. Chairman, you will remember, and a number of gentlemen who were on this committee at that time will remember, that there was a very strong and insistent fight waged here in regard to the reduction of telephone rates. I was in that fight, and I was in favor of the reduction of telephone rates, as were the citizens' associations that I was in touch with. The committee reported a bill reducing these rates to \$50 per annum for telephones in the District of Columbia, and we thought we had a very good piece of legislation at the hands of the committee, but we ultimately discovered that it was the worst thing that could have happened to us, because the reduction was so carelessly worked out and so sweeping, in the face of the position taken by the telephone company that it would be an unfair rate—a similar position to that taken here by the gas company—that it cost the citizens of the District thousands of dollars in endeavoring to uphold that law in all three of the courts that have jurisdiction over this Federal Territory, and with the ultimate result that they were thrown out by the Supreme Court of the United States and lost an untold amount of money in their fight and never did get the relief that the committee provided.

The CHAIRMAN. Let me ask you there, now; have you not had relief along the lines that bill provided?

Mr. LAMBERT. In what way?

The CHAIRMAN. At its last session Congress fixed the telephone rate at \$5 per month.

Mr. LAMBERT. Only for residences.

The CHAIRMAN. And since Congress adjourned the company itself has reduced it to \$4.

Mr. LAMBERT. That illustrates the very position I am taking now. That legislation was had after a most thorough investigation into the conditions and into what the company could do, and after the committee had come to the conclusion that the company's position was in some respects correct. That is to say, that they could not stand a reduction which had not been anticipated, but could take a little ground, and that legislation has been productive of considerable improvement in the rates to the consumers, but it does not yet extend to the business telephones, and, of course, a very large proportion of expense is in connection with those telephones.

Now, I say that we ought to be very careful to avoid any possibility of getting into the same unfortunate position in regard to gas that we fell into in regard to telephones, and I hope that the investigation

will be very thorough in regard to these prices at which the company can furnish the product to the consumers.

Mr. SIMS. Do you object to the bill as it is now drawn?

Mr. LAMBERT. I am opposed to the bill if it is shown upon investigation that the price mentioned therein does not yield a fair profit to the company.

Mr. SIMS. What is your contention, that the present price is reasonable or not?

Mr. LAMBERT. I am not an expert on gas and I can not answer that question. Nor was I an expert on the telephone question, but I say these things ought to be resolved after an investigation into the mathematics of the question and in a way that will be just to the company.

Mr. SIMS. From that standpoint, what is your view of it?

Mr. LAMBERT. If the position taken by the company is correct, if they can substantiate what they have said, I think the price is too low.

Mr. SIMMS. You think, then, that it ought to be increased? I am speaking of the price that now exists.

Mr. LAMBERT. I don't know but what the price that exists now might be reduced.

Mr. SIMS. What is your statement about that, do you think it should be reduced or not?

Mr. LAMBERT. I have not had the report of the company and have never heard it, but if the report given by them is correct, I am not prepared to say how much, if any reduction, I would suggest, because I have not had time to consider the company's report.

Mr. SIMS. You do not suppose that each of us has time to go into the manufacture of gas in detail, do you?

Mr. LAMBERT. No; but I should imagine that the information could be obtained on the company's report and such investigation as could be made by a subcommittee or by officials designated for that purpose.

Mr. SIMS. If you are not of the opinion that prices are too high, why waste this time investigating?

Mr. LAMBERT. If the prices are not too high?

Mr. SIMS. Yes.

Mr. LAMBERT. The bill is based on the theory that present prices are too high. That of course initiates an investigation. I am not initiating the bill; I am simply meeting the conditions as I think they exist.

Mr. SIMS. I am just trying to get at your idea as to whether the present prices should be disturbed; not how much, but whether they should be disturbed at all.

Mr. LAMBERT. My idea is not to have a repetition of the situation in which we were placed in regard to the telephone.

Mr. SIMS. Then the effect of your position is that you are in opposition to the legislation with the present knowledge that we have before us?

Mr. LAMBERT. Yes; if the report of the gas company is correct.

The CHAIRMAN. Gentlemen of the committee, we have a good deal of work yet to do this morning, and I think we ought to economize time. Mr. Goldsborough informs me that the gas company has nothing further to offer.

STATEMENT OF MR. W. T. KILPATRICK.

Mr. KILPATRICK. Mr. Chairman, I am not in touch with the gas company—am not a stockholder, but I am just a plain, ordinary citizen. I am not a lawyer or a public speaker, but I notice that the price of coal has gone up, and the price of eggs has gone up, and the price of meat has gone up, and I and my neighbors are using more gas because it is more economical, and I do not think the price should be reduced. I have not been asked by any officer of the gas company to make any remarks here. I have talked to some of my neighbors, and they think the price of gas is fair and reasonable at the present figure.

Mr. SIMS. Where do you live?

Mr. KILPATRICK. I live in Washington.

Mr. SIMS. What part of Washington?

Mr. KILPATRICK. In the northeast. I did live in New York, and we get more and better gas than we did there. And I have lived in Cincinnati, Birmingham, and Savannah, and I believe we have as good gas here as any city I have lived in, and it is certainly satisfactory to me and my neighbors.

Mr. SIMS. Are you a large user of gas?

Mr. KILPATRICK. No, sir; about \$4.50 a month, or something like that. But we are using a gas range in place of the coal range, which is already installed in the kitchen, because we find we save nearly a ton of coal a month, when our gas probably costs only a dollar a month.

Mr. SIMS. You do not think, then, that it is worth while wasting time investigating this question when the prices are satisfactory?

Mr. KILPATRICK. The present prices are satisfactory, and all my neighbors said so when I talked to them about it except one man, who said he wanted to get something for nothing, and thought the price of gas ought to be reduced to 50 cents; but I think the gas is cheaper than coal.

Mr. SIMS. I was not asking you in a spirit of antagonism. You say you and the people you have talked to are not in favor of reducing the price of gas?

Mr. KILPATRICK. They think that the committee will devote their time just as well if they will help us on public improvements and parks and other systems for the beautifying of the city.

Mr. SIMS. Are you speaking for park improvements?

Mr. KILPATRICK. Our streets in some places are not as good as they ought to be.

Mr. SIMS. I am asking if you are speaking for parks?

Mr. KILPATRICK. We have some parks, but I do not think they are as good as they are in the northwest.

Mr. SIMS. You say, if the committee will do so and so; do you actually need more parks than you now have?

Mr. KILPATRICK. I do not think we could buy land to advantage there now. I would not advise buying more land for parks.

Mr. SIMS. The gas is satisfactory, but the park situation you think might be improved?

Mr. KILPATRICK. I do not emphasize parks.

**STATEMENT OF MR. GEORGE T. DUNLOP, PRESIDENT OF THE
CAPITAL TRACTION COMPANY.**

The CHAIRMAN. Mr. Dunlop, have you anything to offer for the information of the committee on the various bills relating to street-car traffic in the city?

Mr. DUNLOP. I would rather the committee would offer me something. I do not know that we have anything to offer.

Mr. SIMS. If Mr. Dunlop doesn't want to make a regular statement, I have a number of questions I would like to ask him.

Mr. DUNLOP. I will answer any question, Mr. Sims, that you have to ask.

Mr. SIMS. Do you object to free transfers in the District of Columbia?

Mr. DUNLOP. I do. We give free transfers at every junction of our road. I object to free transfers to the other company on the ground, in the first place, that I do not believe that it is legal. I do not think that one company, entirely independent of another, bearing none of the expense of operating it, has a right to carry the passengers of that company free.

Mr. SIMS. Let me ask you about this section of the law here, section 3 of the act passed March 2, 1895:

That the Capital Railway Company—

Now, who owns the Capital Railway Company?

Mr. DUNLOP. I think it belongs to the Anacostia and Potomac system.

Mr. SIMS. It is not a part of your system?

Mr. DUNLOP. It is not.

Mr. SIMS (reading):

The Metropolitan—

Now, who owns the Metropolitan?

Mr. DUNLOP. I think the Washington Railway and Electric owns that.

Mr. SIMS (continuing):

and the Capital Traction Company are hereby required to furnish free transfers at the point of intersection of their lines, so that a passenger, by the payment of one fare on either road, shall have the privilege of riding over the lines of both.

I want to ask you if that law has been obeyed, since it was passed, by your company.

Mr. DUNLOP. Yes, sir; it has been obeyed by our company.

Mr. SIMS. Did you give free transfers over the Metropolitan?

Mr. DUNLOP. We never did; there never was any law requiring it.

Mr. SIMS. Does not this law require it?

Mr. DUNLOP. No, sir; and I will explain it. I am familiar with the passage of that law. Mr. Randle, who built the Capital Railway, consulted with me before the law was passed, and agreed with me for the Washington and Georgetown Railway Company that there should be free transfers between his company and ours if he built up to us at the navy-yard gate. We have done it with other companies and have agreed to do it with other companies that afterwards did not want to do it—found that they could not afford to carry passengers one way free. But any lines that have come direct

to the ends of our lines have been offered that free transfer. This privilege was offered by the Washington and Georgetown Railroad Company and has been offered systematically by the Capital Traction Company.

The law, when passed, included the right to connect with the Metropolitan Railroad after coming over the Eastern Branch. They were to build up Eleventh street to the connection with the Metropolitan Road and to the navy-yard to connect with the Washington and Georgetown Railroad.

Mr. Randle built his road over the bridge—the Capital Railway—then he made a contract with some experimental company—I have forgotten the name now—to build an experimental underground system over the bridge to the navy-yard gate. It was built, and as soon as it was completed and in operation they had a free transfer with the Washington and Georgetown Railroad Company, which lasted for some months—I don't remember now how long. The experimental road was about half a mile long. It was a failure, was so considered by Mr. Randle, and I think they declined to pay for it. It was finally removed from the street. That broke the connection for about half a mile, and there was no further free transferring with our road, as it did not come to us or connect with us.

They never built the connection to the Metropolitan Road, which was something like a mile off, I think, from Eleventh street, about Fifteenth street east. Since then the Capital Railway Company was sold to the Anacostia and Potomac Railroad system, and there has been no necessity for connection with them. If you will notice, the law provides for a connection between both companies, using the word "both," which doesn't mean more than two, I believe, gentlemen, grammatically. You will find that the law was very carefully worded. It has no reference to a connection, either then or ultimately, between the Washington and Georgetown Railroad Company and the Metropolitan Railroad Company. It provides for connection with either both the Capital Railway or the Capital Traction and the Washington and Georgetown, or both the Capital Railway Company and the Metropolitan Railway Company; that is the law.

Mr. SIMS. Is there no law requiring free transfers between companies?

Mr. DUNLOP. There is no such law in existence.

Mr. SIMS. And the companies are not violating any law?

Mr. DUNLOP. Our company has never violated any law, either transfer or any other law. And I want to say here, it never will. There has been something said about there being no way to enforce this law because there was no penalty.

Mr. SIMS. That is what I have seen in the papers.

Mr. DUNLOP. And I am sorry to say it was stated by the Commissioners of the District of Columbia, and I am surprised to know that they made that statement. I want to say publicly here that this same question was up last spring and was submitted to our attorneys by the district attorney, and they both agreed that there was nothing in that law compelling us to issue free transfers, and the Commissioners no doubt had that report from their attorney. And I do not think it is just to the company or to the public for public officials to

make a statement to Congress that is not fair to them. I believe in fair, square dealings all around.

Mr. SIMS. I was of the opinion that there was no law.

Mr. DUNLOP. There is no law. You can see that the word "both" means between two companies. That is all there is of it; and I know all about it because I watched that bill very carefully. It was my duty to do that, and I had that word "both" put in there.

Mr. SIMS. I only asked as to whether or not the street railway companies of Washington obey only when there is a penalty attached to the law?

Mr. DUNLOP. This company will obey every law that Congress passes, whether it has a penalty attached to it or not. If we do not agree with Congress, if Congress should pass a law that we did not believe is good law, we might take it to the courts. I will not promise that we will not do that.

Now the courts, gentlemen, are open for all citizens, and I think you will all agree to that. But we will obey any law that Congress passed that is reasonable.

Mr. SIMS. You will either obey it or test it.

Mr. DUNLOP. We will. We will object to it beforehand, and if they insist on it and it is unreasonable we might have to go to court.

Mr. SIMS. I want to ask you a line of questions; whether these provisions are just. What companies does the Capital Traction Company embrace? What does the title "Capital Traction Company" embrace?

Mr. DUNLOP. The Capital Traction Company is the Rock Creek Railway Company with its name changed. If you will turn to the law of March 1, 1895, you will get the whole thing. The Capital Traction Company is simply the Rock Creek Railroad Company with the name changed by act of Congress.

Mr. SIMS. What was the capital stock of the Rock Creek Railway Company?

Mr. DUNLOP. I don't remember; I think it was about \$200,000, but you will find it in that same law; I want to answer all your questions absolutely.

Mr. SIMS. I know that; but I want to have to ask them before you answer them.

Mr. DUNLOP. The Capital Traction Company is the Rock Creek Railway Company with its name changed. The same law that authorized that authorized it to purchase the Washington and Georgetown Railway and to pay for the consideration of that purchase in stock, giving them the right to issue their stock to pay for that consideration.

Mr. SIMS. Now, I want to ask this; I think we will get along faster if we will just follow the path that I have mapped out. When you changed the name to Capital Traction, then you issued \$12,000,000 of capital stock?

Mr. DUNLOP. Yes, sir; and it is authorized by the law. Just as much as if it had been authorized in the original charter.

Mr. SIMS. You issued \$12,000,000, and then you started to float it?

Mr. DUNLOP. There was no floating of it then; and there was never a dollar of cash passed in the transaction.

Mr. SIMS. Never a dollar; all stock?

Mr. DUNLOP. All stock.

Mr. SIMS. Now, when that \$12,000,000 was first issued, and put upon the market, for what did it sell? I do not mean what you people exchanged between yourselves, but what was the stock worth on the market?

Mr. DUNLOP. I don't remember; it was something below par; it went down finally to 45.

Mr. SIMS. Went as low as 45?

Mr. DUNLOP. Yes; went as low as 45, and sold on our local exchange for 45.

Mr. SIMS. What is it worth now?

Mr. DUNLOP. About 141 or 142.

Mr. SIMS. Now, then, all purchases or extensions or improvements since that time have been made without any increase of the capital stock?

Mr. DUNLOP. There has never been an issue of stock; there is no law to allow us to increase; we would not attempt to do that.

Mr. SIMS. Consequently all improvements and extensions have been made out of the earnings of the road?

Mr. DUNLOP. No, sir; they have been made by the issuance of bonds.

Mr. SIMS. You have issued how much—one million?

Mr. DUNLOP. There is outstanding \$1,080,000.

Mr. SIMS. You paid in 1896, \$419,873; in 1897, \$209,000; in other words, going on down giving the different dividends; you made extensions in 1891, and your extensions were \$480,000, and sale of real estate \$558,000.

Mr. DUNLOP. That was the sale of the old powerhouse site to the Government.

Mr. SIMS. And you issued the next year as dividends amounting to \$960,000.

Mr. DUNLOP. Four hundred and eighty thousand dollars of that came from the proceeds of the sale of that lot.

Mr. SIMS. Why didn't you pay that on the bonds?

Mr. DUNLOP. Why didn't we pay that on the bonds? That was a matter for the directors to decide. I can not say why they did not pay it. It belonged to the stockholders, and they gave it to them.

Mr. SIMS. And you received \$250,000 insurance at the same time?

Mr. DUNLOP. Yes, sir.

Mr. SIMS. Why was it not paid on the bonded indebtedness?

Mr. DUNLOP. Because that was to be put into the electric system on Pennsylvania avenue.

Mr. SIMS. There has been no increase of capital, but a vast increase of value. I gather from the reports for ten years, until 1906, a few days ago, you have paid out in dividends and extensions, together with the proceeds of real estate, \$558,000, \$6,515,245.15. Your stock to-day is worth about 140.

Mr. DUNLOP. It is selling at about 141 or 142 on the exchange.

Mr. SIMS. In addition to the stockholders receiving all this amount of money and the company's extensions, amounting to about \$1,000,000, the increased value in your stock is about \$14,000,000. Now, the Capital Traction, since it was formed and started, has got in the way of profits and added value to stock more than the entire issue of stock.

The CHAIRMAN. Didn't you make an error when you said \$14,000,000? It should be \$480,000.

Mr. SIMS. It went as low as 45. There was an increasing value of \$10,000,000 in the price of the stock, and they received \$6,000,000 in the way of dividends and consideration. Of course, we realize—

Mr. DUNLOP. Well, General, I think this would throw some light on that: The Washington and Georgetown Railroad Company had sold all of its property to the Rock Creek Railway Company, and went out of existence. The stockholders numbered between 180 and 200, I think. I do not think it ever was over 200, and my recollection is that at the time this took place it was about 180. The Capital Traction Company's stockholders number about 1,250, and you have the names of them in the last report.

Mr. SIMS. I don't want to get off on that.

Mr. DUNLOP. I want to get off on that because I want to disabuse your mind of one thing, that the people who own this stock now have paid a great deal—

Mr. SIMS. I do not care anything about that. I want to ask you, at the time this capital stock was issued you had of single track 35.90 miles, and of double track 17.95 miles; in other words, 18 miles of double track. Now, at \$12,000,000 the capital you issued would amount to \$666,666.66 $\frac{2}{3}$ per mile of double track. I mean when you issued it.

Mr. DUNLOP. That goes right to the question. You criticise the Rock Creek Railway Company for paying such prices.

Mr. SIMS. I only want to get at the facts. For the 18 miles of double track you issued stock at the rate of \$666,666.66 $\frac{2}{3}$ per mile.

Mr. DUNLOP. The Rock Creek Railway Company issued stock for the consideration paid to the owners of the Washington and Georgetown Railway Company, whether it was \$500 a mile or \$1,000 a mile.

Mr. SIMS. Your statement heretofore has been that it cost \$120,000 to construct double track.

Mr. DUNLOP. I looked that up since last meeting. What we built last year cost \$63,612 per mile of single track.

Mr. SIMS. But the whole construction has not cost that?

Mr. DUNLOP. I am speaking of the track construction—just what Mr. Madden said cost \$30,000, and that he had seen a contract for. And I went further back than that. I want to get that clear in the minds of the committee. I went back and looked up all the extensions we had made under the Capital Traction Company's management, and the F and G Street line and this extension out east here were \$66,000, because there were a great many more gas mains and water mains to move in the streets.

Mr. SIMS. You say it cost \$66,000. Say it cost \$150,000 per mile of double track. You have it capitalized at \$666,000 per mile of double track. How much of that is water and how much money?

Mr. DUNLOP. There is none of it water; not a drop of water in it. The Capital Traction Company paid that consideration under an act passed by Congress, and issued that stock.

Mr. SIMS. Perhaps I should not have used the word "watered." What is the difference between the capitalized value and the actual money value?

Mr. DUNLOP. The actual money value upon which it is bound to pay dividends is \$12,000,000; that is the actual value.

Mr. SIMS. It is bound to pay dividends upon that?

Mr. DUNLOP. Yes; it is bound to pay dividends, if it makes the money. That is the money value of the present company.

Mr. SIMS. You are paying 6 per cent dividends upon that value?

Mr. DUNLOP. We are.

Mr. SIMS. And paying for all construction out of the earnings?

Mr. DUNLOP. Not at all. I just said we were issuing bonds, and if you have a report you will find that we have a floating debt this last year of \$405,000, and that really is not completed.

Mr. SIMS. But you do not contemplate increasing your capital stock to pay those bonds?

Mr. DUNLOP. No, sir; because we have no right to do it, and we do not contemplate doing anything unlawful.

Mr. SIMS. Why don't you pay the \$558,000 you got for real estate on your indebtedness, and reduce it?

Mr. DUNLOP. We paid \$480,000—not \$580,000—to the stockholders. We paid it by order of the directors.

Mr. SIMS. You received \$558,000?

Mr. DUNLOP. The balance of it was used in other matters of the company.

Mr. SIMS. You received that?

Mr. DUNLOP. Certainly we received it.

Mr. SIMS. You were carrying at least \$480,000 bonded indebtedness and you were paying 6 per cent on it, and you were paying dividends on approximately \$700,000 per mile, and then you tell this committee and this country that you can not take the little reduction that might come about by free transfers, and further acknowledge that your capital stock has enhanced in market value \$10,000,000 since shortly after—

Mr. DUNLOP. Whose stock are you talking about?

Mr. SIMS. You said it went to 45 cents.

Mr. DUNLOP. I said the present stock went down to 45.

Mr. SIMS. That was all it was worth then.

Mr. DUNLOP. Not at all.

Mr. SIMS. Then why didn't you sell the stock for what it was worth?

Mr. DUNLOP. How do I know? How does anybody know? It is worth 141 now.

Mr. SIMS. Because it brings it. Anything is worth what it will sell for.

Mr. DUNLOP. That was on the stock exchange.

Mr. SIMS. But the people sold the actual stock, didn't they?

Mr. DUNLOP. I think you will find that there was not very much sold then.

Mr. SIMS. Hasn't there been an enhanced value in the stock of your company out of all proportion—

Mr. DUNLOP. Certainly the stock has enhanced, and the interest of the stock is only 4 per cent on 150. Would you loan money at 4 per cent? I wouldn't.

Mr. SIMS. Would the price of your stock be materially reduced or affected in any way by giving free transfers?

Mr. DUNLOP. Certainly it would.

Mr. SIMS. What effect would it have?

Mr. DUNLOP. It would have the same effect as the issuing of 15,000,000 transfers has now. If we got full fares we would get greater receipts. It will affect it just to the extent that we haul passengers from all the other systems coming to us.

Mr. SIMS. But your business will increase and your receipts will increase with each passenger you carry free after a certain number.

Mr. DUNLOP. That is speculative.

Mr. SIMS. And the idea that it would reduce receipts is also speculative.

Mr. DUNLOP. I know something about that.

Mr. SIMS. Would you take less than 140 for your stock if we put on free transfers?

Mr. DUNLOP. I do not want to sell mine, for just the reason that none of you gentlemen would want to. I think I am entitled under any State law or any law in the country to reasonable compensation on that stock, and I think 6 per cent is not unreasonable. You fix 6 per cent as a point where it is not usury, and I think it is reasonable that the courts will bear me out in that.

Mr. SIMS. Isn't 4 per cent stock good stock; isn't it par everywhere?

Mr. DUNLOP. It is beter than 3.

Mr. SIMS. It is practically 100 cents on the dollar?

Mr. DUNLOP. Not at all; some men would not touch it. You would not invest in 4 per cent stock, you said.

Mr. SIMS. No, sir; I said I did not have any money to lend. Now, you would not as a stockholder in your company agree to sell your stock at less than 140 if we put on free transfers?

Mr. DUNLOP. No, sir; because I have it at par and it is bearing me 6 per cent.

Mr. SIMS. You have made 4 per cent then?

Mr. DUNLOP. I have not made anything because I have not sold it.

Mr. SIMS. You have received 6 per cent?

Mr. DUNLOP. Yes; and I have also received 2 per cent.

Mr. SIMS. You have received what was allowed.

Mr. DUNLOP. You will find that we paid—

Mr. SIMS. Your stock has been improved by extension, etc.?

Mr. DUNLOP. Not at all; extensions have a tendency to draw it down.

Mr. SIMS. Are not your extensions a part of the property?

Mr. DUNLOP. Of course.

Mr. SIMS. Is 22 miles of Capital Traction worth more than 36?

Mr. DUNLOP. No; we could have made more money on the 22 than on the 36.

Mr. SIMS. Yes; you said it cost \$166,000 a mile to build it.

Mr. DUNLOP. I want to say on that point, because the public doesn't understand this any better than General Sims does, that the more miles you operate the less net profit you get out of it. We have been asking to be allowed to cover this whole District with our lines, and stand ready to build them to-day, but it would reduce our net profits if we did, and it would do away with the demand for free transfers.

Mr. SIMS. With your road as it is, will you not be able without extension, if we give free transfers, to pay your 6 per cent dividend year in and year out with the normal growth of the District?

Mr. DUNLOP. I think not, because we will simply be a dumping line for everything.

Mr. SIMS. You think your company would be injured worse than any other?

Mr. DUNLOP. I think we would be very materially injured.

Mr. SIMS. You would be very materially injured. And yet you would not sell your stock for 1 cent less than you say it is bringing now?

Mr. DUNLOP. I do not run the Capital Traction Company on my personal interest. I put that aside absolutely. I try to operate that company on business principles; if my stock didn't pay me 1 per cent I would not have anything to say.

Mr. SIMS. Because you get a salary as president?

Mr. DUNLOP. My salary is known of all men. It is in the public documents here in the Capitol. I am not ashamed of it; I earn every dollar of it. And if the stockholders do not think so, they can say so and I will get out. They pay me \$15,000 a year.

Mr. SIMS. That is the reason why I said that you can afford to be in this company, even if you do not have a share. You would not sell your stock because it carries with it something more than the dividend. Suppose you held no office in the company.

Mr. DUNLOP. It carries with it a dividend on its face value that I invested in.

Mr. SIMS. Suppose you had no office and we were going to pass a bill materially reducing the value of the stock, would you not sell your stock at present prices?

Mr. DUNLOP. If I knew you were going to pass a bill to ruin me, I would sell it to-morrow.

Mr. SIMS. But we can not injure you, as you are getting a salary, even if we allowed free transfers. But I believe, Colonel, that you can give free transfers without hurting the stockholders or salaried officers or anybody else.

Mr. DUNLOP. I disagree with you, General, from any standpoint. I think I know more about the business than you do.

Mr. SIMS. You know it better ten times than I do.

Mr. DUNLOP. And then there is the other question to which I want to call the committee's attention. As I said before, we will obey any law that Congress passes that is reasonable. We have always done it, and there need be no penalty in it to make us obey; we will do it without that; but if Congress passes an unreasonable law the courts are open to us.

Mr. SIMS. They ought to be open to you.

Mr. DUNLOP. They ought to be, and I think there is not one gentleman at this table who will deny it. If you pass a law loading us up with free transfers, no one here will deny that we will have a right to go to the courts. But I want to say that there is another question involved there, the right to make any corporation or individual carry a passenger or do any other kind of work without reward. The free transfer means that we must carry those passengers without reward. That question will go to the courts.

Mr. SIMS. The reason I have asked you so much about your own company is because I can not understand the reports of the other companies at all, but I can understand yours.

Mr. DUNLOP. We make everything so that any man can understand. We have nothing to hide, gentlemen, and I want to say here that we make money, too.

Mr. SIMS. Your reports show it.

Mr. DUNLOP. We do not deny it.

Mr. SIMS. But for the franchises—

Mr. DUNLOP. For the franchises we hold the receipts of the District government at 4 per cent.

Mr. SIMS. It is the lowest tax on the face of the earth.

Mr. DUNLOP. The lowest tax on the face of the earth?

Mr. SIMS. The lowest that I have heard of to call it tax. I do not think that it would be reasonable to call it tax if it were any lower.

Mr. DUNLOP. That is your private opinion.

Mr. SIMS. It is about 30 cents per \$100 on the selling value of the stock.

Mr. DUNLOP. You are getting into stock; I am not a stock dealer.

Mr. SIMS. It is good property with or without free transfers, and it will be 200 one of these days, and the reason of it is because the city is growing.

Mr. DUNLOP. I want to tell this committee now that if I can make it worth 500 I am going to do it, and you do it, too, at home.

Mr. SIMS. You are looking at it from a salary standpoint while we are looking at it from the standpoint of the good of the people. When will the day come that your company will be willing to give something in the way of reduced fares?

Mr. DUNLOP. Never. If Congress opens the way to us and says that we can build out to the sections that are clamoring for the car lines it will do away with the demand for free transfers.

Mr. SMITH. Where is it that you want to build?

Mr. DUNLOP. You have had the bill in Congress for four years. Mr. Sims introduced it. We are asking you for something that we will not make a cent on. We want to get this extension because this thing has been agitated for years and years.

Mr. SIMS. You don't think the service can be improved, do you?

Mr. DUNLOP. I am trying to improve it every day, and one of the greatest improvements would be a greater extent of lines.

Mr. SIMS. What road is it that you want to build?

Mr. DUNLOP. You have the bill; you introduced it.

Mr. SIMS. I am certainly in favor of the bill if I introduced it.

Mr. DUNLOP. I am referring to the bill introduced in Congress for three or four years, extending our roads on Florida avenue to Eighth street east, down Eighth street to connect with the navy-yard line at Eighth and Pennsylvania avenue, and a spur running from Eighth street into the depot, so that those passengers from the navy-yard might go into the Union Depot without going around by the Peace Monument and that people out in the northeast could go into the depot in that direction without coming around.

The CHAIRMAN. Mr. Dunlop, as one member of the committee my attention has never been called to that bill.

Mr. DUNLOP. That is for General Sims, then; he introduced it.

Mr. SMITH. Are you willing to build down North Capitol?

Mr. DUNLOP. I was going to explain that bill. We asked to go out Florida avenue to Eighth street; down Eighth street to the navy-yard, or connecting with a road that goes there, supplying a want felt by all that northeast part of the District. Then we asked to come down New Jersey avenue from Florida avenue to the depot, because if you will take the map you will see that there is a diagonal cut northwest from Chevy Chase, Mount Pleasant, and that northwestern part of the city that almost makes a direct line to the Union Station. Now, gentlemen, we ask to build that, and we are not accustomed to ask for extensions and then not build them.

Mr. SIMS. With that line would you be willing to agree to universal transfers?

Mr. DUNLOP. No, sir. That would do away with the necessity for universal transfers. I do not believe that you have a right to make us haul any passenger without reward. That is a statutory right that we have; we must have pay for whatever we do.

Mr. SMITH. Just one question: Are you willing to give the same fares in Washington that the lines offered in Detroit last fall—10 tickets for a quarter five hours in the day and 6 tickets for a quarter the rest of the day and universal transfers?

Mr. DUNLOP. No, sir; frankly, no, sir. Because we have a great many risks. As soon as you begin to issue two or three different kinds of tickets or more than we have now, you open the door for all sorts of fraud not only from the public, but from the employees as well, and I think we have as good a set of employees as any company in the land.

Mr. SMITH. You think that the Detroit United Railways is as well managed as any railway in the Union, do you not?

Mr. DUNLOP. Where is that?

Mr. SMITH. In Detroit.

Mr. DUNLOP. No doubt. Unfortunately for me, I have never been to Detroit; but I have been a good deal over this world. I have been in Michigan, but I have never been in Detroit. I have seen street cars operated in every State in this Union and every Territory but one, and I have seen them operated in almost all the foreign countries. And I want to say here, gentlemen, that it was in my line of business and I was very observant, and the city of Washington has the best street railway system I have seen.

Mr. TAYLOR. Have you ever been to Ohio and seen the operation of the system in Columbus?

Mr. DUNLOP. Yes, sir.

Mr. TAYLOR. You know, don't you, that their cars are as good, if not better, than any cars in Washington? They give seven tickets for a quarter and universal transfers.

Mr. DUNLOP. We have had cars built in Ohio, and have had them built there for years; and there is no better car in the world. It is the latest of all the factories.

Mr. TAYLOR. They have cars in Columbus that they run seven tickets for a quarter, and when their earnings are over \$175,000 in any one year they run eight tickets for a quarter; and they give universal transfers and their stock is increasing.

Mr. DUNLOP. Are they allied companies?

Mr. TAYLOR. It is all one big company.

Mr. DUNLOP. Ah, that makes a great difference. Only one com-

pany gets the fare and you have to haul the passenger without having the burden of carrying without reward.

Mr. TAYLOR. Would you do it if you were all one big company?

Mr. DUNLOP. I don't know enough about that, because I don't know enough about the inside of the other company.

Mr. SMITH. Mr. Dunlop, I want to say that the Detroit United Railways urged the people of Detroit to accept the proposition which I have named here.

Mr. DUNLOP. What do they get as a straight fare?

Mr. SMITH. They still have to pay 5 cents, because they are in trouble with the city. There was just one issue in the campaign in the city of Detroit last fall. It was neither Congressional, State, nor county. The whole question was whether the people of Detroit would accept at the hands of the railway 10 tickets for a quarter five hours of the day, and 6 tickets for a quarter the rest of the day, and universal transfers, and the same agitation has been going on in Chicago. It is no agitation on the part of the people. The company spend thousands of dollars to urge the people to accept it, but they did not accept even that; they want 16 tickets.

Mr. DUNLOP. Every company that has built to the end of one of our lines, when they proposed universal transfers, we have said we would agree to it if they thought they could stand it. We give free transfers to this little half-mile road out here that Mr. Randall operates and carry passengers on transfers from it.

Mr. SIMS. If you are willing to give transfers over the Old Dominion by agreement, why can not you give them over other roads by agreement?

Mr. DUNLOP. Simply because we can not afford it. That road comes in at only one end. General Harries's road is tapping us at probably a dozen points. We can not control that.

General HARRIES. Forty points.

Mr. DUNLOP. Forty points. We would be 40 points below par.

Mr. SIMS. Well, suppose that free transfers were provided for by an order of the Commissioners?

Mr. DUNLOP. Just as soon as that occurs I won't be president of the Capital Traction Company, and I will not be president of any other company that I can not control.

Mr. SIMS. Do not the Commissioners now have something to do with the manner of construction?

Mr. DUNLOP. I want to say that the Commissioners will never order a transfer issue by a company that I am president of, because I will be out before they have the opportunity.

Mr. SIMS. You will not let them designate the points?

Mr. DUNLOP. What do they know about railroads?

Mr. SIMS. I have not asked any questions out of a spirit of hostility, I assure you.

Mr. DUNLOP. I understand; and I am glad that the committee asked these questions, because I think it would be facetious in me to come here and state things that I am not asked to, but when I am asked about them we have nothing to hide. We have a law under which we operate this company, and we are going to stick absolutely to that, and we have good attorneys to advise us.

Mr. SIMS. That law can be altered, amended, or repealed.

Mr. DUNLOP. Certainly; and that is one reason why the stock fluctuates.

Mr. SIMS. It has been going up ever since I have been here.

Mr. DUNLOP. Certainly.

The CHAIRMAN. All parties who desired to be heard on this subject have been heard. The time set by the committee has been exhausted. Of course, if General Harries, with a large bundle of papers which I suppose contain information, has been sidetracked, we would like to know whether the General would like to be heard on the subject of free transfers.

General HARRIES. Nothing would please me more than an opportunity to talk to this committee on street railroads.

The CHAIRMAN. Unless the General feels that his rights are sacrificed by not being heard—

General HARRIES. I am not afraid of any figures.

Mr. SIMS. I think it is very necessary to hear General Harries. He has gotten together a report that is very complicated, but I have no doubt he can explain it, and I think he ought to have an opportunity.

(At 12 the committee adjourned.)

COMMITTEE ON THE DISTRICT OF COLUMBIA,
Wednesday, February 13, 1907.

GAS RATES AND STREET-CAR SERVICE.

The CHAIRMAN. This hearing was called to complete the hearings on what is known as the railroad question, the several bills affecting street-railway transportation in the city, and also upon the bill affecting the rate charged for gas.

The time of the first day's hearing was devoted entirely to those who wished to speak in favor of the passage of the bills. The last hearing was devoted entirely to those in opposition, so the time has been equally divided. The time to-day will be equally divided between those who are in favor of the propositions and those that are opposed, and the chair would like to know who of the parties here are in favor of these propositions, so that the time can be arranged, or the parties in favor of the various propositions may arrange among themselves to control the time, and that would be entirely satisfactory. Only, we do not want afterwards to have it said that those who favored these propositions had no opportunity of being heard.

Mr. E. W. OYSTER. I represent the Petworth Association, which is in favor of both of these propositions. Mr. Tucker is here, and I think he also favors them.

The CHAIRMAN. Is there anyone else beside yourself and Mr. Tucker who wishes to be heard?

Mr. E. H. TUCKER. Mr. Chairman. I understand that Mr. Thomas W. Smith, who represents the East Washington Association, desires also to be heard.

The CHAIRMAN. Very well. Then either you or Mr. Oyster may proceed. Please give your name to the stenographer before addressing the committee.

STATEMENT OF MR. E. W. OYSTER, OF THE PETWORTH CITIZENS' ASSOCIATION.

Mr. OYSTER. Mr. Chairman, I am a member of an association that has indorsed both of these bills, but unlike some of the gentlemen who have spoken here in opposition, we think we know exactly why we indorse each one of the bills. We believe that we are entitled to cheaper gas; we believe that the gas company can furnish gas at a large profit to them and with justice to their employees as to the matter of wages and hours of labor at 75 cents per 1,000 feet.

My interest in this gas question was aroused several years ago after having read the report of our consuls from abroad as to the price of gas in foreign countries; and my interest became so much aroused that I innocently went to the gas company to inquire for some information, but I was catechised quite severely to know what particular information I wanted and what object I had, or what use I desired to put it to. And it finally resulted in being told by the secretary that I knew how much gas I burned, and that was all that was necessary for me to know. I then and there discovered to my surprise, what so many people have been discovering lately, that this gas company has never been required to make reports of its operations to Congress or to anybody else; in other words, notwithstanding the fact that it seems to have millions and millions of feet of gas to burn, it has always been permitted to work in the dark. And so, Mr. Chairman, I read up on this gas question from the different reports submitted to Congress from as far back as 1874, the report made by Senator Morrill, of the Senate committee; also a report containing the evidence obtained and submitted by Senator Spooner in the investigation of 1886. The Morrill report was made in 1874, and the Heard report made about 1894; and the evidence submitted in all those reports by gas experts is conclusive to me that the gas company can manufacture and sell gas to its consumers in this District for 75 cents a thousand feet at a considerable profit.

Now I will briefly refer to some of the evidence in these investigations. On January 29, 1874, Senator Morrill, of Vermont, in discussing a resolution instructing the Senate Committee on Public Buildings and Grounds, of which he was chairman, to inquire whether the price of gas should not properly be diminished, said:

I know that the price of gas furnished in London, of a standard quality, tested every day, is about one-third of what we pay for it here.

The Washington Gas Light Company is now charging from 100 per cent to 200 per cent more than is being charged to consumers of gas in Great Britain.

On May 6, 1874, after the investigation by his committee, Senator Morrill advocated the passage of a bill reducing the price of gas to \$2.50 a thousand feet. Among other things he said:

I may say here that the Washington Gas Light Company is a very prosperous one. It was incorporated with a small capital and gradually increased to \$500,000. In 1866 it was doubled, or raised to \$1,000,000, and there was subsequently added a provision by which the capital was increased from \$150,000 to \$200,000 more, and yet the stockholders of the company have never contributed a dollar beyond the first original stock of \$500,000, save a small percentage of this \$150,000 additional, of which they do not seem to have had any need, as they have not called for it, and at the present time their surplus is \$700,000 over that.

That is quite a prosperous sort of a company.

What became of this \$700,000 surplus is not positively known, but it is fair to assume that the stockholders received the full benefit of that immense sum one way or the other, either in a direct bonus, or in extending the gas plant, and thereby increasing its value without cost to them.

On July 7, 1886, after a thorough investigation of the cost of making and distributing gas in this District, Senator Spooner, of Wisconsin, from the Committee on the District of Columbia, submitted a report which shows that up to 1886 not more than \$500,000 of the \$2,000,000 of the capital stock of the Washington Gas Light Company had been paid for by the stockholders; in other words, that at least three-fourths of the stock, "represented at best only excessive profit paid by the people;" that a cash bonus of more than \$650,000 was distributed among the stockholders in 1883; that dividends of from 10 to 65 per cent had been paid during the years 1866 to 1885, averaging about 20 per cent each year for the twenty years, and that the whole plant had, in addition to the immense dividends and cash bonuses, been built with the excessive profits without any cost whatever to the stockholders.

Now I want to refer briefly to this minority report from this committee on the bill dated April 14, 1902, to permit this gas company to increase its capital stock to \$13,750,000 over its present authorized capital of \$2,600,000.

The committee said:

No officer of the company has ever contended that more than \$1,492,500 was ever paid in. We believe that if the truth were known it would be found that only \$42,500 was paid into the company's treasury, and all the balance of its stock represents profits drawn from the citizens of the District, in addition to the large dividends this stock has always paid.

In 1894, Mr. Heard, chairman of the District Committee, reports the company as paying an annual dividend of 10 per cent and having accumulated earnings, undistributed, amounting to \$280,000. This too during the years when, according to their own testimony, the plant had been rebuilt and its capacity doubled.

And quoting again from that report:

In response to inquiry of Hon. J. W. Babcock, on February 3, 1896, the company reports dividends paid for 1895 as \$600,000, or a little more than 23 per cent, with a cash balance of \$89,922.38 at the end of the year.

And again further on—

Now, having all these years drawn this increased compensation in order that they might build their plant without the issue of additional stock and bonds, the company comes before Congress and demands that they be allowed to capitalize the unjust profits they have extorted from the people and issue \$13,750,000 of stock for the specific purpose of hampering Congress should it attempt hereafter to reduce the price of gas.

Still further on it says:

It staggers one to contemplate the nerve that demands from one Congress that the price of their commodity be not reduced for the specific reason that if permitted to build their plant out of the profits, Congress in the future will have a free hand to lower the price of gas, and then demands of another Congress that they be permitted to increase their capital stock to five times its present amount in order that Congress may not be able to lower the price of gas.

Now, notwithstanding these facts, the Washington Post, on the morning after the last hearing before this committee, stated that a

young man from the Navy Department created a sensation by stating that those who were advocating 75-cent gas "desired to get something for nothing." No wonder he created a sensation. And I want still further to say that, notwithstanding the fact that Congress increased the capital stock to \$2,600,000, the so-called certificates of indebtedness were issued in violation of law on which 6 per cent interest is paid, and amounting to \$156,000 per annum. These certificates were distributed as a gratuity among the stockholders.

The pivotal question, in fact the only question to be considered in connection with the Madden bill is: Can the Washington Gas Light Company furnish gas at 75 cents per 1,000 cubic feet and pay just dividends to its stockholders and fair wages, with reasonable hours of labor, to its employees? The company says it can not, but it is safe to say that at least 90 per cent of the people of Washington believe that it can.

The Washington Gas Light Company has always claimed that the cost of manufacturing and distributing its product was much higher than the actual cost. Under date of April 29, 1886, in a letter to Senator Pike, a member of the Committee on the District of Columbia, the then president of the gas company stated that—

The amount of gas sold in 1885 was 523,685,918 cubic feet, and that the cost was 84.45 cents per 1,000 feet net.

On the question of the cost of production and distribution the report submitted by Senator Spooner states as follows:

Mr. Vanderpoel, a coal-gas expert, speaking to the gas experts in 1879, figured the net cost of pure coal gas per 1,000 cubic feet at 35.8 cents. He estimated coal at \$5.50 a ton, while the statement before the committee is that in Washington the coal purchased by this company last year was \$3.35 a ton, and this year will be \$4.10 a ton, a great difference in favor of this company.

And then the report quoted from a letter, as follows:

Mr. Vanderpoel, engineer of a Newark gas works, is putting coal gas in his holder at a cost of 28 cents per 1,000, fully 18 candlepower. I know of prominent coal-gas works in New York City where the cost is not over 30 cents. Of course in both cases the by-products are sold and the value allowed.

And farther on it says:

Colonel McCarty, commended to the committee by General Negley as a reliable and competent gas expert, testifies that the fair cost here of coal gas of requisite candlepower, including distribution, is not over 58 cents. It is, in the opinion of the committee, all things considered, certainly a generous concession to this company to assume that 35.8 cents, the net cost in 1879 as found by Mr. Vanderpoel, would at least cover the net cost for the same item in Washington to-day.

And still farther along it says:

We doubt very much if the fair cost of distribution here is 28.8 cents per 1,000 cubic feet.

That was the amount claimed by the company as the cost of distribution.

Colonel McCarty testifies that the usual cost is 18 cents per 1,000 cubic feet. Take it, however, for the purpose of the argument, as the company gives it, at 28 cents. This, added to the 35.8 cents cost to the holder, calculated in 1879 on the basis of coal at \$5.50, would make the actual cost per 1,000 feet of coal gas of requisite candlepower 64.6 cents in Washington.

Or the committee figured it out at 20 cents lower than was claimed by the gas company.

The CHAIRMAN. I want to call your attention to the time. We can give you two minutes more, Mr. Oyster. There are four other gentlemen who desire to be heard, and who represent citizens' associations.

Mr. OYSTER. I would like to say that I have figures here showing that in England the price of gas ranges from about 55 cents down to 36 cents for illuminating purposes, and as low as 28 cents for manufacturing purposes; and where that is general in those cities, besides the regular tax on their plants, the same as a private plant would pay, they have contributed hundreds of thousands of dollars to what is called "relief of taxation;" they have reduced the hours of labor, increased the wages of the employee, and everything tends to show, in the clearest possible way, by the evidence that I have here, that it is not only possible for the gas company to declare fair dividends, not on the amount actually invested, because that would be insignificant, but on the stock actually authorized by law; that they can pay fair dividends and not only pay the wages they are paying their employees, but can reduce their hours from twelve, which they are working now, to eight hours, and, as I say, increase wages 25 per cent and still furnish gas to consumers at 75 cents a thousand feet. If I could present all the evidence I have here, I think I could convince this committee that these statements that I make are true.

Mr. SMITH. You spoke of and read from reports of Senator Morrell at a time when gas was \$3 a thousand here, and it was reduced to \$2.50, while at the same time gas was selling in London for \$1 a thousand. Is any reason given why it was not reduced here to the same price as it was selling for in London?

Mr. OYSTER. No, sir; I do not think he gave any reason. But he gave good reasons why it should have been materially reduced. But no intelligent man who studies this question can honestly claim that it costs from 100 to 200 per cent more to distribute gas in the city of Washington than in the English cities.

Mr. Pou. What was the purpose of issuing those certificates of indebtedness that you spoke of a while ago?

Mr. OYSTER. Well, of course I did not get any of them, and the gas company I found was very slow to give any information in regard to them; but my inquiries there were about the time that they were issuing those certificates of indebtedness, and I found that I was touching them in a raw spot. It is my opinion, and I think it is the opinion of the whole community, that those certificates of indebtedness were issued for the purpose of getting rid of some of its immense surplus that it could not otherwise get rid of; in other words, to hide the immense dividends which it would have to distribute among its stockholders.

Mr. Pou. What was the aggregate amount of all certificates of indebtedness issued?

Mr. OYSTER. Two million six hundred thousand dollars, on which they paid 6 per cent, or \$156,000, per annum.

Mr. Pou. Were they issued to anybody excepting to the stockholders of the company, so far as you know?

Mr. OYSTER. I was before the Central Labor Union committee investigating this gas question with the attorney of the gas company, and I had a full hearing before that committee for an hour or more. That question came up, and the attorney of the company admitted

that these certificates of indebtedness were distributed as a bonus among the stockholders.

The CHAIRMAN. It was practically a stock dividend, was it not?

Mr. OYSTER. It must have been an immense dividend, whatever it was, a dividend of 100 per cent.

Mr. SIMS. And no indebtedness was made?

Mr. OYSTER. There was no indebtedness incurred. It was purely a bonus to cover up the immense dividend that they otherwise would have declared on their authorized lawful stock of \$2,600,000.

STATEMENT OF MR. EVAN H. TUCKER, PRESIDENT OF THE NORTHEAST WASHINGTON CITIZENS' ASSOCIATION.

Mr. TUCKER. Mr. Chairman, the Northeast Washington Citizens' Association has indorsed Mr. Madden's 75-cent gas bill.

Our association has always believed that it is the duty of Congress, while it prevents other competing companies to come in and furnish gas to our citizens, to look after this matter and see that we are furnished with a good quality of gas at as reasonable a figure as it can be supplied with reasonable profit to the company. We are unable to find out exactly what it costs to make gas, but we look to Congress to do that. We have noted in our own experience from the time when gas was \$4 a thousand feet that no reductions have ever been made excepting as a consequence of agitation. This agitation comes by bills being introduced in Congress and by the citizens indorsing them. Without that agitation no reduction could have been made. But most of the reductions have been made by Congress by direct act. Some reductions have been made by the gas company, but none have been made excepting by agitation.

Three years ago, when Senator Foster introduced a bill which, in its preamble, stated that the gas company had a stock bonus of \$2,600,000 which was distributed to the stockholders of the company without any money being passed whatever, our association immediately indorsed the bill. This was a 75-cent gas bill, similar to Mr. Madden's bill.

Mr. SIMS. Who was it introduced by?

Mr. TUCKER. Senator Foster. Our association immediately indorsed that bill, and we had a hearing before the Commissioners. But I want to say that that hearing was granted very soon after, and before most of the citizens' associations had had time to act upon the bill, so there were only two associations, as I remember it, represented there, and the report of the Commissioners was adverse to the bill. One of the reasons that they gave was that there was no general agitation of the citizens in favor of it; therefore they did not believe it should be passed.

Now, gentlemen, to me that looks to be ridiculous. Congress gives one company the exclusive right to furnish us this commodity, which is second to the water supply, and the company has no competition whatever; and because the citizens do not continually agitate to get it at a reasonable price, they do not want to take any action.

Mr. SIMS. Have you a copy of the report of the Commissioners on that bill made at that time?

Mr. TUCKER. No, sir; I have not, but it is on file.

Mr. SMITH. Can you secure one and put it in the hearings?

Mr. TUCKER. I think a copy can be gotten from the Commissioners. I would be glad to furnish it if I could get it.

The report referred to is as follows:

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, February 16, 1904.

SIR: In accordance with the request of your committee for a report by the Commissioners respecting Senate bill 3042, "to amend an act relating to the sale of gas in the District of Columbia," the Commissioners have the honor to report that they favor the lowest price for gas in the District of Columbia that will afford a reasonable profit to its producers, but that they are unable, without entering upon an extensive investigation, to say whether the reduction in price proposed by Senate bill 3042 is reasonable and just.

The Commissioners feel that an investigation of this character should be made by Congress rather than by the Commissioners. If the conditions under which the so-called stock bonus of \$2,600,000 mentioned in the preamble of Senate bill 3042 was issued are to be made the subject of thorough inquiry, it will necessitate sending for persons, books, and papers; while to elicit the facts as to the present cost of making gas, the amount furnished to consumers, and the profits resulting therefrom will require expert judgment on the one hand, and full and frank statements from the officers of the gas companies on the other. The Commissioners have no power to compel the testimony of the necessary witnesses or the production of the necessary papers. Some information has already been obtained by the Commissioners, but it is not sufficient to warrant them in giving a definite opinion on this particular bill.

At a public hearing held by them on January 20, 1904, after due preliminary announcement in the daily newspapers in Washington (and afterwards fully reported in them), only nine persons appeared, and of this number six were officers or stockholders of the Washington Gaslight Company or the Georgetown Gaslight Company, protesting against the legislation. The others presented individual arguments in favor of some such legislation as the bill proposed. Since then six communications have been received from individuals in favor of such legislation, and a protest has come from the president of the Georgetown Gaslight Company and one from the secretary and treasurer of that company against it, together with one communication from an individual unfavorable to it. Neither the Washington Board of Trade nor the Business Men's Association has advocated the measure, nor has it been commended by any of the Washington daily newspapers. One of the citizens' associations has passed a resolution asking that the proposed bill be enacted into law and submitted a copy of the resolution to the Commissioners.

The statements made by some of the advocates and some of the opponents of Senate bill 3042, as to the cost of making gas, are so contradictory that they can not be reconciled, and it is impossible to draw satisfactory conclusions from them without a prolonged examination, with the assistance of experts, for whose employment the Commissioners lack the necessary funds.

Very respectfully,

HENRY B. F. MACFARLAND,
President Board of Commissioners, District of Columbia.

HON. J. H. GALLINGER,
*Chairman Committee on the District of Columbia,
United States Senate.*

The CHAIRMAN. The copy would come from the Senate?

Mr. TUCKER. Yes, sir.

The citizens of northeast Washington do not want to do anything unreasonable. We do not want the gas company to furnish gas any lower than it can and leave a fair profit to the company. We think the gas company is a good institution, that it is furnishing a fairly good gas, and has done pretty well by the citizens. But we understand all the time that they will get as much for that commodity as they can.

When the dollar-gas bill passed ten years ago it passed providing the price should be reduced in 1901. Prior to that it had been \$1.10.

The gas company claimed then just as strongly as they claim now that they could not furnish gas at \$1. It seems that they did furnish gas at \$1, and after about two years had elapsed, or perhaps three years, here was a bonus of \$2,600,000 in hand which had accumulated.

Mr. POT. What was the original capital supposed to be?

Mr. TUCKER. I am not advised, but it was a very small amount. They paid 10 per cent on their capital stock right straight along, and this was given to the stockholders in addition to that.

Mr. SIMS. They had often paid more than 10 per cent.

Mr. TUCKER. I think they had in the past.

Mr. SIMS. Prior to that time?

Mr. TUCKER. I think so.

Our association has some reasons for believing that the company can furnish gas at 75 cents a thousand now. You understand that there are two companies in the District of Columbia, the Washington Gaslight Company and the Georgetown Gaslight Company. It is a well-understood fact that a company which furnishes a large amount of gas to a large number of consumers, and where the consumers are not very widely distributed, can furnish that at a lower price than a small company to consumers that are distributed over a great deal of ground. For that very reason Congress has always allowed the Georgetown Company to charge more for gas than the Washington company. In the act which provided for dollar gas, the Washington company was required to furnish gas at \$1 per thousand, and the Georgetown company was allowed to charge \$1.25 per thousand, which they did. But the Georgetown company has now voluntarily reduced the price of gas to \$1, and the equitable difference has always been considered to be 25 cents a thousand.

Now as we reason it, if the Georgetown company can afford to make a reduction of 25 cents a thousand upon their gas, why can not the Washington company do the same?—because it is well understood that the cost to the Georgetown company of making and distributing is greater by that ratio than that of the Washington company.

Mr. SIMS. Is not the gas of the Georgetown company made at the same plant and in the same way as the other company?

Mr. TUCKER. That is a question upon which the citizens are not advised, and I presume it would be hard to find out.

Mr. OYSTER. I will say that at the Central Labor Union hearings, I asked, in reference to a company in New York pumping its gas into the mains of another company at 28 cents a thousand feet, if the Washington Company ever pumped the gas into the Georgetown mains. I know that they do. It was a question that rather surprised the gas people, but Mr. Goldborough reluctantly replied that occasionally they did. I asked him how much they charged the Georgetown company for the gas pumped into their mains, but they were ignorant as to that and did not state. But they do pump gas, at times at least, into the Georgetown mains.

Mr. TUCKER. When the dollar-gas bill was passed this committee and the Senate committee both went into the question of candlepower very carefully. It was concluded that the national capital should have the best gas that could be produced, the highest candlepower, and so on; and after the examination of experts on the subject the candlepower was fixed in the act at 25, the gas company being required to furnish that candlepower for several years. But

about three or four years ago a clause was slipped into one of the District appropriation acts allowing the gas company to reduce the candlepower to 22. Now we understand that 22-candlepower gas can be produced at a much lower cost than the 25-candlepower gas. Still the gas company did not volunteer to make any reduction in the price of gas and give the consumer the benefit of the reduction in the candlepower. The price of gas remained the same.

The CHAIRMAN. Mr. Tucker, can you give the committee any information on that point? There has been considerable discussion about the candlepower, for the contention is made by the gas company that they can furnish gas at 20 candlepower which would be more satisfactory than gas at 25 candlepower. The average gas furnished here is about 23 candlepower, the legal measure being 22, as you state. As I understand it, the gas company claim that the kind of gas that burns at 20 candlepower would be more satisfactory than that which burns at 25 candlepower. I would like to ask you if there is anything in that contention.

Mr. TUCKER. I believe that 22-candlepower gas is more satisfactory than 25-candlepower, for the reason that it does not smoke so much. When they have to enrich the gas to such a large extent as to make it 25 candlepower, it causes it to produce a large amount of smoke. That was their contention, and I believe that is correct. But in doing that they can now use a very cheap quality of oil, almost like crude oil, and that very materially reduces the expense of making gas. And we claim, on account of that, that the citizen should have the benefit of that.

Now, another point that we make is this: Since the reduction in the price of gas to \$1, the consumption has very largely increased. On the theory, and on the practical experience which everybody is familiar with, that with a large number of consumers on the same mains gas can be supplied at a lower cost, we think that since this large number of consumers have been added, without a corresponding increase in the length of mains, that the gas company are able to furnish the gas at a much lower price than they were when they had such a comparatively small number of consumers.

Mr. CAMPBELL. Do you have any complaints from citizens at any time in your section of the District or the city on account of the pressure of the gas?

Mr. TUCKER. Yes, sir.

Mr. CAMPBELL. Does that come from insufficient supply?

Mr. TUCKER. No, sir; the supply is sufficient.

Mr. CAMPBELL. I wish you would go into that phase of the question.

Mr. TUCKER. The trouble about that is this: Some of the old mains were laid there probably twenty-five or thirty years ago, when the population was not so dense, and at the time they laid those mains they were large enough to carry the supply used at that time. Since that section has built up largely, those mains are not large enough, and the gas company, when they find them to be insufficient in size, replaces them from time to time. And another thing, when a main becomes old it will not stand the pressure that it will when new, and the gas company is unable to put the pressure on it that is required to give us the amount of light we should have.

The CHAIRMAN. That is, you do not have sufficient pressure?

Mr. TUCKER. No, sir.

The CHAIRMAN. I thought you referred to overpressure, Mr. Campbell?

Mr. CAMPBELL. No.

Mr. TUCKER. The company has never been accused of giving overpressure.

Mr. CAMPBELL. The remedy for want of sufficient pressure would be largely in new mains?

Mr. TUCKER. Yes, sir.

Mr. CAMPBELL. Is there any complaint about the gas not being up to the required candlepower?

Mr. TUCKER. No; but I want to say right there that I do not believe anybody in the District of Columbia inspects the gas, and that neither the Commissioners nor anybody else knows anything about the candlepower of the gas when it is burned. The theory of the inspection is simply a theory and nothing else, and I say that without any reflection upon the inspector whatever. I believe the inspector is a good, honest, true man, but the inspection of gas is made in the daytime, when we are not using illuminating gas, but when we are using gas for fuel and no other purpose. It is a perfect farce to pay that inspector and to rely upon the inspection unless he is going to take the candlepower, the pressure, and the purity of the gas at night.

Mr. SMITH. Why does he not do it at night?

Mr. TUCKER. Because he is not required to do it.

Mr. SMITH. Under the law?

Mr. TUCKER. He must do it in the daytime; the office is closed at night.

Mr. POU. There is no requirement as to when?

Mr. TUCKER. No, sir; none whatever, that I know of.

Mr. CAMPBELL. Do your citizens make complaint as to the candlepower?

Mr. TUCKER. The citizens have made complaint of not having proper light over and over again, but they do not know the reason why. We do not know whether it is insufficient pressure or lack of purity or low candlepower. But they do know that they are not getting the right sort of service. And they also claim that in any act that this committee passes in the future it should be provided that the inspector should be required to make these tests at night, when we are using gas, so we will know what the candlepower, the pressure, and the purity is.

Mr. SIMS. In that connection, do you think there is a real difference of 25 cents in the cost of manufacturing gas in Georgetown as against Washington?

Mr. TUCKER. Well, I think that was reasonable. I have attended these hearings; I have been interested in this gas question a great many years; as the chairman of the committee knows, we have gone into this thoroughly with this committee and with the Senate committee, and we have always thought that that difference was equitable, presuming, of course, that they are not using the same gas, and I think it has never been presumed by this committee or by Congress that they have done that.

Mr. SIMS. Taking it for granted that they do not, and that the gas is being furnished as it is supposed to be, was it the belief and

conclusion that there was an equitable difference of 25 cents a thousand feet?

Mr. TUCKER. That was the general belief. Georgetown only has a population of between 14,000 and 15,000; it is particularly scattered, and it is a very different thing from the city of Washington.

Mr. SIMS. And you think that the company supplying the city of Washington proper could do it for 25 cents a thousand less and make more?

Mr. TUCKER. That is right.

Mr. CAMPBELL. You do not contend that they can make the gas cheaper per thousand feet in Washington than in Georgetown?

Mr. TUCKER. Yes; make it and distribute it.

Mr. CAMPBELL. Because of the larger consumption?

Mr. TUCKER. Because of the density of population.

Mr. SIMS. They do not have to use the same length of mains.

The CHAIRMAN. You must remember, Mr. Tucker, about the time.

Mr. TUCKER. Yes. I want to say that I have spent a good deal of time answering questions of members, but I will not consume but a very little more time, and I want to say something about the street-railroad question. But before going to that, as to the gas question, I want to make one more suggestion. I do not think that too much stress should be put by Congress upon what gas is furnished for in other cities. What we want to find out is what it can be made for here and allow the company to make a fair profit, because in other cities there are other considerations that enter into the price, such as large salaries to officials, and all sorts of things. The president of the company here only gets, I think, \$20,000 a year. In New York the president might receive as much as \$100,000 a year, or such a salary as is paid to some of the presidents of life insurance companies; and all that goes into the cost of making gas, and it comes out and it is made public in their report. So, I say, do not put too much stress upon what they can do it for in other cities, but consider what they can do it for here upon an economical basis.

Mr. SIMS. Do you mean to be ironical when you say that the president of the gas company here only receives \$20,000 a year?

Mr. TUCKER. Well, you can take that as you choose.

Mr. POW. Does this company furnish all the gas that is used in all of the public buildings here?

Mr. TUCKER. Yes, sir.

Now, in regard to the universal-transfer bill, I will ask the indulgence of the committee for a few moments more, because our citizens' association has not been heard on that at all. The association has indorsed a reciprocal transfer arrangement between the two companies that exist here. We have indorsed as much of Mr. Madden's bill as provides for free transfers between the two corporations. There are transfers between all the lines within those lines excepting two or three—

The CHAIRMAN. What two or three lines do you refer to? Is the City and Suburban line separate at all?

Mr. TUCKER. It is not so treated.

The CHAIRMAN. They are all in the combined system with the exception of the City and Suburban line.

Mr. TUCKER. Practically they are all one corporation, and they

have reciprocal transfers between those within that one corporation, but what we want is this: We want reciprocal transfer between the two——

Mr. MADDEN. What do you mean by reciprocal transfers between all the companies within the corporation, as, I believe, you said?

Mr. TUCKER. Well, there are 11 companies within the Washington Railway and Electric Company, and they transfer from one line to the other all the way through.

Mr. MADDEN. Then you do not need anything more than that?

Mr. TUCKER. But the Capital Traction Company is another system entirely, and no transfers are furnished between the Capital Traction Company and the Washington Railway and Electric Company. That is what we want.

Mr. MADDEN. What you mean is that they have reciprocal transfers between all the companies that are in the Washington Railway and Electric Company.

Mr. TUCKER. Yes; between those 11 companies.

Mr. MADDEN. But the Capital Traction Company is not included in that at all.

Mr. TUCKER. No.

Mr. MADDEN. What proportion of the whole system is the Capital Traction Company?

Mr. TUCKER. According to the mileage, the Capital Traction Company is quite a large concern. They run the Avenue line.

The CHAIRMAN. Won't General Harries kindly answer the question, to save time?

General HARRIES. It is as 142 is to 38.

Mr. TUCKER. The reason why the citizens of East Washington are so anxious for the reciprocal transfer arrangement between these two systems is obvious. The northeast section has not the Capital Traction Company in at all, excepting a little loop that comes around this new Senate office building. Otherwise, we have no use of the Capital Traction Company. We can not use it except by walking a long distance, probably a mile or two, or by paying two fares. It is obvious why we should want it. We have been clamoring for fifteen years to get the Capital Traction Company to extend its line north and south through our section of the city so that we could get the use of it, and of course that would give us the use of the whole system. We have no use of it now at all. A large amount of the clamor for this from the northeast Washington people could be done away with if you would allow the Capital Traction Company to extend, as Mr. Dunlop said at the last hearing, the line north and south through our section. That is what we want. We have asked it from this committee over and over again. The Old Dominion bill had that extension in it, it was favored by the committee, but for some reason it did not pass.

The CHAIRMAN. I wish you would leave a memorandum with the committee showing the particular extension that you desire; leave it with the clerk of the committee.

Mr. TUCKER. I would be glad to do that.

I thank the committee for the kind attention given to me.

STATEMENT OF MR. L. P. SHOEMAKER, OF WASHINGTON, D. C.

Mr. SHOEMAKER. In speaking upon the subject of the street railroads, I want to say that I speak in behalf of the Brightwood Citizens' Association, as the president, and as chairman of the committee of the Business Men's Association.

First, with reference to the gas question, I would say that our organization has not considered this bill at all, therefore all I have to say upon that subject, and it will be only a few words, is of a personal nature entirely.

I do not know what it costs to produce gas; I do not know what profit the gas company is now realizing. But I should say to you, gentlemen of the committee, that I am indeed much gratified, as a lifelong citizen of the District of Columbia, to see that there is so much attention paid to this question of cheaper gas, which is, as the gentleman has just stated, the second question to be considered to our water supply. I have no doubt it is true that enormous profits are being made here, larger profits than have ever been made and realized by this company. If that is true, then surely we should have cheaper gas. That is all I can say to you upon that subject, and I speak only from a personal standpoint in connection with it.

Now, touching upon the railroad question, I want to say that our organization has not considered the subject of the transfers. Therefore I can not speak for the Brightwood Citizen's Association upon that subject, and I shall have to allude to that personally as well. It seems to me that we ought to be in this community fairly well satisfied with the service which we are now receiving from these railroad companies, and it seems to me we could get along fairly well without what is known as the "reciprocal" transfer system, the system which would carry the passenger from one corporation to the other.

Practically speaking, we have but two corporations in the District of Columbia, all the roads, some nine or ten of them, being owned by what is known as the Washington Railway and Electric Company and the Capital Traction Company. The people out at Brightwood are more interested in the question of through service. For a number of years the street railroad company owning the Ninth Street line, and also what is known as the Brightwood line, has persisted in the practice, which has been particularly detrimental to our entire section of the community and which has inconvenienced our people greatly, of dumping their passengers at a point just beyond Florida avenue, and we have been obliged to spend hours in the rain and mud waiting for cars, until a year or two ago there was a little house put on one side, back from the street, not heated at all, and which is, comparatively speaking, very little used because it is not a convenience to the people and has not been since its construction. Practically speaking, men, women, and children are obliged to get out of the cars on the edge of the capital city of our nation and wait in the mud and rain for another car in order to continue their journey on 3 or 4 miles. We have repeatedly asked this company to extend its Ninth Street line, or, if not extend it, to simply allow the Ninth Street cars—every other one—to proceed to the terminus at Takoma, and every other one to the terminus at the District line. This has been refused.

Now, gentlemen, if you have the power, and you wish to seriously consider my reasons and the desire of our people who have suffered so long, I hope you will make this corporation give us through service. On the other side of the city the Capital Traction Company has extended its line, and extended it at a cost of several hundred thousand dollars, I am prepared to say, through the woods, in order to give the people living there through service; and why can not this line, instead of furnishing us crowded cars by day and by night, give us a through service also. They have told us for years, under this condition, that they are losing money on the Brightwood road, but our community does not feel that that can possibly be the case to-day. How is it possible to manipulate an overhead trolley railroad line, 4 miles from the old boundary of the District, along the line of a street that is practically built up from one end to the other, with crowded cars practically at all times, and lose money? Does anyone believe that that is true?

Mr. MADDEN. How often do they run these cars?

Mr. SHOEMAKER. Every fifteen minutes.

Mr. MADDEN. Do you have to pay an extra fare when you go beyond the city line?

Mr. SHOEMAKER. No; they have been generous enough to give us transfers.

Mr. MADDEN. Why do not they run their cars clear through?

Mr. SHOEMAKER. That is what we want them to do.

Mr. MADDEN. What excuse do they make for not doing it?

Mr. SHOEMAKER. Because they say that the Brightwood line does not pay, and that it will not pay them to do it. Yet here is this other system, the Capital Traction Company, as I have said, that has spent many hundreds of thousands of dollars to extend its line a considerable distance with an underground system, carrying its passengers out, and depending upon the future growth of the city for the returns, depending on the country being built up; and yet here is this other railroad company, with its tracks and cars and men, refusing to give our community through service. Surely the other company is well managed; surely it is in splendid condition; surely its men are well paid; surely they are uniformed and look as clean and satisfactory to all of us, but it does not have the good management of the other company.

I stood the other day at the corner of Ninth and F streets and I saw six cars going to Le Droit Park, while we stood there in the cold and the wind waiting for twenty-five minutes for a car going to Florida avenue and Seventh street. And I say that is the result of the management of that road.

Mr. MADDEN. I thought you said they ran every fifteen minutes.

Mr. SHOEMAKER. I am speaking of the schedule of service from Florida avenue.

Mr. MADDEN. How does the scheduled service compare with the actual service?

Mr. SHOEMAKER. I should say fairly. The cars run on the Brightwood line every fifteen minutes, one of them going to the District line and the other to Takoma, so that beyond the Takoma junction and up to where I live I only have a half-hour service—that is, the people of Takoma only have a half-hour service, excepting recently,

when trippers have been put on morning and evening. And I want to say a word about that. Trippers were put on to accommodate the people during the busy hours of the morning and evening. But, gentlemen, I have stood and have seen those trippers turn in one after another and have seen numbers of people waiting after a tired day's work in the city, anxious to go to their home; and surely the service can not be deemed efficient as long as the people are standing there in that way in crowds, anxious to get to their homes.

Now, just a word further. Gentlemen, if it is true—and how it is true it is impossible for this community to understand, because in vain have we passed resolution after resolution asking this company to give us through service, and that has been done not only by the Brightwood Association, but also by the Petworth Association and by the Brightwood Park Association and the Takoma Association, and that whole community is a unit out there in its efforts to secure through service, and we have plead with this company for years for that service, and if you gentlemen have the power to give us that service, which we so much need and that we so much desire, I hope you will do so.

Mr. SIMS. Is the schedule from here to the boundary—from the heart of the city to the boundary—more frequent than farther out?

Mr. SHOEMAKER. Yes, sir; that is one of the disadvantages. A Brightwood car will wait there until three or four or five Ninth street cars have gone; then the people on those Ninth street cars crowd themselves into the Brightwood cars. That originated the expression, "Crowded into those cars like cattle," because you can not get into a car the number of people who will come up from the city on four or five city cars without crowding that car beyond its limits.

Mr. SIMS. Let me ask you right there: If the cars were run from the city to the boundary on the same schedule as they are in the city, would that give you a satisfactory schedule?

Mr. SHOEMAKER. Yes, sir.

The CHAIRMAN. I understood you to say it would be satisfactory if every other car would do that?

Mr. SHOEMAKER. No; I did not say that. If the Capital Traction Company is going to run its cars out into the woods, where there are no people, this line ought to run its cars—

Mr. POU. I understood you to say that every other car would give satisfaction.

Mr. SHOEMAKER. Anything would be an improvement if we could get rid of that abominable transfer there.

Mr. POU. What we would like to know is your idea as to what should be done. By "through service," what do you mean? When you say "through service," you mean what?

Mr. SHOEMAKER. All the cars running out to about where they should go.

Mr. POU. How often do they run?

General HARRIES. Every three minutes during the rush hours, and at no time more than four minutes, depending upon whether the car is going—

Mr. POU. How often is the schedule from the boundary out to Brightwood?

General HARRIES. Mr. Fuller, have you those figures there?

Mr. FULLER. Yes, sir.

General HARRIES. I wish you would give them, so that my statement may be exact.

Mr. FULLER. Here they are [submitting papers].

General HARRIES. On the Brightwood line, leaving the Seventh street loop, from 5 o'clock a. m. to 6 a. m., every fifteen minutes; from 6 to 8.10, every five minutes; from 8.10 to 9, every ten minutes; from 9 to 2.45 p. m., every fifteen minutes; from 2.45 p. m. to 4, every five and ten minutes; from 4 to 7, every five minutes; from 7 to 7.30, every ten minutes, and from 7.30 to 12.15, after midnight, every fifteen minutes.

The CHAIRMAN. Is that the Brightwood schedule?

General HARRIES. Yes; leaving the Seventh street loop.

Mr. SIMS. That is where the division is made?

General HARRIES. Yes.

The CHAIRMAN. That is the present Brightwood schedule, I understand?

General HARRIES. Yes; that is the present operated schedule.

Mr. SIMS. There are from two to five times as many cars running to the boundary as beyond the boundary?

General HARRIES. Yes.

Mr. MADDEN. Is there any distinction between the city passenger and the passenger that lives beyond the city line? Do they wear better clothes, or anything like that?

General HARRIES. No; not as good.

Mr. POU. Are there any of these cars that run from the city out to Brightwood without change?

General HARRIES. No. The Brightwood company is one of the best examples that could be offered of free-transfer practice. It gets half the fare.

Mr. SIMS. Why could you not run the same number of cars through?

General HARRIES. Either the Brightwood company would have to charter the cars from the Ninth street line or else the Ninth street line would have to lease the Brightwood road.

Mr. MADDEN. Do you do that in order to facilitate the earning power?

General HARRIES. No, sir; it does not at all.

Mr. SIMS. The trust company holds 1,016 of these shares, and the Washington Electric Lighting and Power Company is the one that owns those 1,016 shares?

General HARRIES. The bonds are the physical property. You can not do anything that the bondholders will not permit you to do.

Mr. SIMS. Are the bondholders making this regulation?

General HARRIES. We do not own all the bonds.

Mr. SHOEMAKER. I sincerely hope that you gentlemen will exert every effort to give us through service out there. The whole community, without exception, stands in favor of it. If it is true that this railroad company is losing money on the Brightwood line—and we say it is impossible—then why should this condition continue during all these years? Surely we should take some action, and this committee should take some action, to relieve this company from further loss.

The CHAIRMAN. Right there, Mr. Shoemaker. Do you think it would be possible for this committee to make a schedule for the

street railway lines of Washington? Would it be possible for Congress to do it?

Mr. SHOEMAKER. I do not see any reason why it should not do so.

The CHAIRMAN. It would take intimate knowledge to do so.

Mr. SHOEMAKER. You certainly can require the companies to offer the cars as often as the public convenience requires. We come here as representatives of the people, and we bring you resolutions from all these associations.

The CHAIRMAN. I am trying to get at some method of solution.

Mr. SHOEMAKER. Give us through service, such as is given by the Capital Traction Company. Give us such through service as that by which this very company is carrying people to-day from the center of this city, G street, out to Laurel, half way to Baltimore. Give us the same service as is given to those who want to go out through the Eastern Branch.

General HARRIES. The City and Suburban Company built its own line from Fifteenth and G streets into Maryland, and it has always operated it. It has that right. If the Brightwood company had built clear downtown, it could do so also.

Mr. POW. The schedule out beyond Florida avenue is every fifteen minutes?

General HARRIES. No, sir; every five minutes is the minimum, up to fifteen.

Mr. GREENE. Now, I would like to ask you a question about the fares. Are they satisfactory or unsatisfactory?

Mr. SHOEMAKER. I alluded to that. Perhaps you were not in your seat at the time. I am perfectly satisfied, personally, with the fares, and on that subject I do not speak for the association. But we do want through service on that Brightwood line, and I do think you gentlemen can well say to this company, if it is true that they are losing money, "Discontinue the business." If they are losing it now, they have been losing it long enough. They have been operating to the detriment of the community long enough. Pray let them discontinue business and allow another company to take it up and render that service to which the people are entitled.

The CHAIRMAN. Mr. Harper, we will endeavor to give you five minutes. In doing that we will have to infringe upon the time of the opposition. Give your name to the reporter.

STATEMENT OF MR. J. H. HARPER.

Mr. HARPER. I want to give the committee some figures on the operating of the street railway line with reference to car shortage. I want to follow what Mr. Shoemaker has said and break right into my programme, leaving the Washington Railway and Electric, which is the banner company, so far as the earnings are concerned. Their net earnings per car per year—those of the Washington Railway and Electric—were \$1,250. I am dealing not with the interest charges or the interest on their bonds, but the actual operating expenses, including salaries. The Brightwood Railway Company, from its report, carried during the year 2,939,054 passengers, receiving therefor \$71,321.52, with operating expenses of \$63,381.41. Five cars earned \$7,940.11 during the year, a net earning per car of \$1,590.

Mr. POW. What company is that?

Mr. HARPER. This is the Brightwood company. I am just following Mr. Shoemaker.

Mr. MADDEN. That is the one that is losing so much money?

Mr. HARPER. Yes. It is the cheapest of all in its operation. The average number of passengers per car per year is 588,000, or 1,610 passengers per day per car. That equals 80 passengers per car per trip, and their car capacity is not half of that, allowing 20 trips of 6 miles per day.

Mr. OLCOTT. Where do you get these figures from?

Mr. HARPER. Those are from their own report.

General HARRIES. I want to save the committee's time. He is barking up all the wrong trees there are. He speaks of the cars owned by the Brightwood company. How about the cars leased by that company?

Mr. HARPER. I want to give you something for your own benefit. Here the service should be 15 cars of the largest size to take even a reasonable number, and if the number of cars were increased to 20, it would yield probably a net earning per car of \$500 per year, and would increase the number of patrons 100 per cent in three years.

Mr. MADDEN. The General wants to deny the truth of the statement that appears in his report.

General HARRIES. No; not at all. It is the number of cars owned that Congress asks each company to report. We say that the number of cars owned by the company is so many. We so state in the Brightwood report, but the number owned is so clearly insufficient that anybody with any sense, even Mr. Harper, would know that from somewhere other cars must be secured. The questions in the reports were framed by Congress. All we have to do is to answer truthfully, and that we do.

Mr. SIMS. Do not amuse us by saying that Congress ever planned any of these things.

Mr. HARPER. If the number, I say, were increased to 20 cars, it would make a net earning per car of \$500. The real-estate men owning large tracts out there could afford to present the cars to the company and guarantee the cost of operation, as it does not cost them more than 10 cents per car per mile for operating this line, and they would have only to carry 3 passengers per car per mile to meet expenses. It is evident from this report that they are now carrying many times this number, and even if that was distributed to this number of cars in service it would yield a large return.

One of the items in their report is the number of people injured and killed on this road. That number is given in this particular report, which points out very pertinently to you gentlemen that it is criminally operated.

The Tenallytown line from its report shows the same conditions. It shows a percentage of car earnings of \$2,787 per car per year, having three cars.

Mr. KLINE. Is that single car earnings?

Mr. HARPER. Yes; the average number of passengers per car per year was 523,645, and per day 1,435.

The General is going to upset all this, but I am pointing out the fact that in his own report of the operation of their road the car earnings of this banner line, the Washington Railway and Electric,

is \$1,250 per car. The car shortage is the only item I am talking about. This city needs double the number of cars. There should be put on every year 33 per cent, and then they should maintain a minimum of not less than two-minute service throughout the entire business day. They have got what they call "rush hours," and there are eight rush hours, properly considered. They will tell you less than that, but, as a matter of fact, that shows it.

The figures I have here I will have to turn over to the committee to go into the record, because I am short on time; but they show that they can earn larger dividends on an increase of cars than they are earning now—a very much larger dividend. The gentleman will tell you, of course, that I am not an expert in car operation, that I am a theorist; but one programme I call for is the express-car service which Mr. Lowry said in Minneapolis is not practicable. But Mr. Lowry has a system on which there are four or five times as many as there are on our lines, and yet he gets from Minneapolis to Minnetonka within a few minutes of the time the steam lines get there.

Mr. POU. Does the average cost of operation for a car amount to a little over \$2,000?

Mr. HARPER. Yes.

Mr. POU. Are you contending in sincerity before this committee that this is a fair statement?

Mr. HARPER. I am coming to this committee with some of their figures. I am stating that their total car service, without regard to whether they transfer from one point to another, is entirely inadequate.

Mr. POU. I think what the committee would like would be the actual facts—whether that is your own sincere contention as to whether they are making that much?

Mr. HARPER. I have compiled figures before the Congress of the United States, and I compiled in the year 1883 the list of pensioners and their disabilities on which you based what was presumed to be the high-water mark of legislation for pensions, which was \$100,000,000, whereas now it is \$140,000,000. This is all in good faith, for the benefit of the District of Columbia, and primarily for the benefit of the railroads.

Mr. POU. The reason why I ask you is that you keep alluding to the fact that they will probably answer your figures with other figures.

Mr. HARPER. They would not give me that information before I got up to speak on Brightwood, and knew I would bring it out.

Mr. KLINE. What proportion of the car earnings are required to operate the road?

Mr. HARPER. The car earnings are \$1,200,786.22 with 535 cars. That is on the Washington Railway and Electric. On the Anacostia and Potomac River Railroad, carrying 12,262,593 passengers, 88 cars earned \$140,072.20 net, the gross receipts from those passengers being \$369,046.08, while the operating expenses for carrying them were \$229,973.88.

On the City and Suburban Railway 47 cars, carrying 12,145,566 passengers, with \$394,136.78 as gross earnings, the net earnings for those 47 cars per year were \$144,129.68, or \$3,000 per car.

On the Brightwood Railway Company, carrying 2,939,054 passen-

gers, the gross receipts were \$71,321.52, with operating expenses of \$63,381.41, and there with 5 cars operating they earned per year \$7,940.11, or an average of \$1,590 per year per car.

On the Tennallytown Railway 3 cars carried 1,570,936 passengers, with \$44,416.41 income, with operating expenses of \$36,056.05, making a net income of \$8,359.91, or an average per car per year of \$2,787.

The total number of cars of this combination is 673 (which is half the number they ought to have), carrying 70,870,000 passengers, at a gross income of \$2,879,000. They have, as I say, 678 cars carrying passengers, while the Capital Traction Company has 606 cars carrying 54,000,000 passengers. There they have got practically 25 per cent better car service on a closer and more compact settlement, it is true, in which they deal, with the exception of the Chevy Chase, and their gross earnings are \$1,700,000, with their operating expense given as \$714,000.

The CHAIRMAN. Mr. Harper, it seems to me you are not confining yourself to the bills before the committee for free transfers and reduced taxation and cheap gas. I am very sorry to say your time has expired. The advocates have now had an hour and twenty minutes, which leaves only forty minutes for the opponents—the other side.

Mr. HARPER. The needs of the city of Washington are increased cars and the building of such trackage as will unify the railway systems, and such as will enable the transfer of cars rather than the transfer of passengers. The Brightwood line should run from the heart of the city. It is a purely technical point which estops it from doing that.

Mr. KLINE. I know that the cost of operation varies in different communities. Can you tell us what proportion of the gross receipts were required to operate this road in the year 1889? Can you tell us what percentage of the gross receipts were required?

Mr. HARPER. The figures that I had showed that the city of Washington carried the largest number of passengers for the actual trackage they had over almost any city of the country outside of New York; and they showed very much larger earning capacity than the city of Minneapolis, which is a very profitably operated city.

Mr. KLINE. What percentage of the gross receipts?

Mr. HARPER. I could not answer that very carefully. Their own figures show it; but they will tell you that they must add their interest charges on their bonds, and all the other things.

(Manuscript filed by Mr. J. H. Harper.)

[Washington Railway and Electric.]

Total number passengers carried, 41,952,715; received therefor, \$1,200,786.22. Total number cars, 535, earning \$1,200,786.22. Net earning, \$667,172.22; net earning per car per year, \$1,250 (approximately). Average number passengers per car per year, 78,414; per day, 215; per trip (5 trips per day), 43. Average number of passengers per day, 115,000. Allowing one-half of these carried at rush hours (eight-hour period), equals 7,500 per hour. Allowing half the cars in service in one rush hour, equals 30 passengers per car during eight-hour period.

Now, the average capacity of cars of this service are above that of Capital Traction, possibly, but this is a car service of a less number of cars than the travel demands, for half of the people are carried at the rush hours (and these represent periods of two hours or more four times in the day), and during

summer time the congestion carries into late hours of night on many of these lines, and the traffic would increase 50 to 100 per cent if comfortable accommodations were furnished.

[Brightwood Railway Company.]

Carried during the year 2,939,054 passengers; receiving therefor \$71,321.52; with operating expenses of \$63,381.41; this with 5 cars earning per year \$7,940.11; 1 car earning per year \$1,590; average number of passengers per car per year, 588,000; per day, 1,610; allowing 20 trips (6 miles) per car per day, 80 passengers per trip.

Here the service should be 15 cars of the largest size to even take a reasonable number, and if increased to 20 cars it would yield probably a net earning per car, of \$500 per year, and increase the number of its patrons 100 per cent in three years.

The real-estate man owning any large tracts could afford to present the cars to the company and guarantee any loss of operation, as it does not cost them more than 10 cents per car mile for operating this line, and they would only have to carry 3 passengers per car mile to meet expenses. There is no business sense shown in operating this line.

It is evident from this report that they are now carrying many times this number, even distributed to this number of cars in service, and doubtless losing more than that number of fares per car mile.

Take number of injured on this short line, 42, and 1 killed, and there is no stronger argument needed of the criminal method of operating this line.

[Tennallytown Railway Company.]

Carried during year 1,570,936 passengers, receiving therefor \$44,416.41, with operating expenses of \$36,056.50; earning with 3 cars \$8,359.91, or earning per car per year, \$2,787. Average number of passengers per car per year, 523,645; per day, 1,435.

This on a road $4\frac{1}{2}$ miles in length, taking twenty-five minutes for run; allowing 20 runs per car per day, makes over 70 per car.

This service warrants increase to 10 cars for this road right away and an increase of 3 per year after that.

Another case of criminal operating for a territory that should grow fast if any adequate service were afforded.

[Anacostia and Potomac River Railroad Company.]

Carried during the year 12,262,593 passengers, receiving therefor \$369,046.08, with operating expenses of \$229,973.88; this with 88 cars earning \$140,072.20, making earning per car per year \$1,600 (approximately). Average number of passengers per car per year, 140,000; per day, 400, an average number of passengers per day of 34,000.

This on a line 9 miles in length, taking 80 minutes for run, allowing 10 trips per car per day would make 40 passengers per car trip.

Here is a call for a large increase of cars and a better running schedule.

[City and Suburban Railway.]

Carried during year 12,145,566 passengers, receiving therefor \$394,136.78, with operating expenses of \$250,007.10; 47 cars earning per year \$144,129.68; car earning per year, \$3,000. Average number of passengers per car per year, 258,000; per day, 700; allowing 10 trips per day per car ($17\frac{1}{2}$ miles), 70 passengers per trip.

Here the service could be increased to 100 cars, with an appreciable increase in revenue and a consequent increase in patrons, for it is evident that the limit of profitable traffic operation has long since been reached, and loss of fares must be large here also.

W. R. & E., 41,952,715 passengers; Capital Traction, 39,649,442 passengers; 14,499,160 passengers—66,101,317 passengers carried on all lines.

Capital Traction, car shortage. Number passengers carried, 54,148,602; number cars, 606, earning \$1,704,221.82; operating expenses, \$714,521.20; balance, \$989,700.62. Forty-four and twenty-seven one-hundredths miles of track, with 14 cars to mile of track, or 8 to 10 blocks.

Net earnings per car per year, \$1,633.17; average number passengers per car per year, 89,354; per day, 250; per trip (5 trips per day), 50; average number passengers per day, nearly 150,000. This allowing that all cars are operated every day in year and average 5 trips per day.

Rush hours are more than eight per day, so that double crew would have full employment for eight-hour day. Allowing half of daily travel carried at rush hours, equals 10,000 per hour—33 passengers per car—allowing one-half cars in service during hour.

The average capacity of small cars is less than 20 and of largest cars 35. This shows an actual congestion per car where it is assumed that passenger rides for one-half a car trip.

With more cars they could increase the number of trips per car and shorten the actual running time per trip from 10 to 30 per cent and correct the fatal error of overcrowding, because at rush hours they would bring into service entire rolling stock if of the convertible type, thus multiplying by four or more the number of trips made in that period.

The CHAIRMAN. General Harries, the committee will hear you now.

**STATEMENT OF GEN. GEORGE H. HARRIES, VICE-PRESIDENT
WASHINGTON RAILWAY AND ELECTRIC COMPANY.**

General HARRIES. Mr. Chairman and gentlemen, unless it be the desire of the committee I will not take up the little details that have been referred to by the two or three who have preceded me, but I will address myself directly to the bills under consideration, and then if there are any questions to be asked or any cavities to be filled we can attend to them, I presume, afterwards. I regret that I have really so little time. It seems too bad that the individual, responsible or irresponsible, representing himself or no one or a few, should have been accorded so much of the committee's patience and time while the real interests, whose financial lives are at stake, should be crowded into the last moments of a melee.

The provision for universal transfers, whether in the bill H. R. 23023 or in what we know as the Wiley bill—and I have not that number now—is objectionable from every standpoint except from that of the man who wants something for nothing.

We have, through seven years of activity here, done more than has been done in any other city in the country with respect to transfers, and the conditions here are so to-day that the traveler on any one line of the Capital Traction system or on our system can reach practically any part of the city, and without the walk of more than a square or two, and the great bulk of the traffic can at any time get within a very short distance of the destination it seeks.

Now, the universal-transfer suggestion is absolutely new. Never anywhere between unrelated companies has there been a free reciprocal transfer. We have transfers here, as they have in other cities where there is more than one company controlling street-railway transportation. We have transfer arrangements with the Capital Traction Company. We sell 2-cent transfers at two points.

The CHAIRMAN. It was stated here at the last hearing by Mr. Dunlop that the proposition for universal free transfers is unconstitutional, and that if Congress should enact the law, they would apply

at once to the courts for relief. I would like you to state if your company or your interests have investigated the legal aspects of this affair?

General HARRIES. They have, sir. They are satisfied that it is not possible for any power to make us carry a passenger who has paid his fare to the Capital Traction Company.

A BYSTANDER. Has he investigated the decision of the supreme court of Illinois on that question?

General HARRIES. No, sir; we are practicing before the supreme court of the District of Columbia, and our opinion is satisfactory to us, that you can not require a company to carry a passenger without compensation, and that is precisely what that would be.

Mr. SIMS. Then legislation along this line would be void and would not hurt your road?

General HARRIES. It would not be entirely creditable to Congress to enact such legislation.

Mr. POW. Has the Supreme Court of the United States made any deliverance on it?

General HARRIES. No, sir. The question has never been passed upon. It is an entirely new proposition. The point is right there, as to the equity of it: Do you want to compel a common carrier to convey a passenger without compensation? Do you want to put yourselves in that attitude?

Mr. SIMS. Do we not compel the Washington Railway to carry a Brightwood passenger now without extra fare?

General HARRIES. Oh, no; that is in one system.

Mr. SIMS. It is a different act of Congress entirely. There is nothing in the act to say that it is in one system.

The CHAIRMAN. Right there, let us settle this question as far as we can here. If Congress requires you to accept a transfer from the Capital Traction Company, and requires as a compensation for that that the Capital Traction Company shall accept your transfers, is not that an equivalent?

General HARRIES. No, sir.

The CHAIRMAN. Is that carrying a passenger for nothing?

General HARRIES. That would be; and in each case the company receiving the transfer would get nothing. Suppose your passenger entered a car of the Capital Traction Company and paid his fare to the conductor and was transferred to us. The Capital Traction Company having received his fare and we having carried him for nothing, the unwarrantable presumption is that he will go back by the route he came and pay his fare on the return trip to us and be transferred by us to the Capital Traction Company, which will carry him on its line for nothing.

Mr. OLCOTT. If you carry people for the Capital Traction Company for nothing, would not the way you would get back your compensation be that they would take your transfers for nothing?

General HARRIES. Yes.

Mr. TAYLOR. And you have got a franchise. When you are required to accept universal transfers and accept a franchise with that in it would you say you would have no compensation?

General HARRIES. If we had accepted our franchise with that provision therein that would be so; but no one can produce any figures,

no one can put up here or anywhere else a bankable or any other kind of suggestion or forecast as to what is going to happen under this—as to who will win or who will lose.

Mr. MADDEN. When you accepted the conditions as they existed, with the right of the Federal Government to modify or amend the conditions which were in existence when you accepted them, there could be no question raised about the right to modify?

General HARRIES. No, sir; I do not question that right. We are thinking of the proposed exercise of that right.

The CHAIRMAN. One more question, General, and then I am through for the present. In the bill providing for free transfers, we will say, for example, that you issue a thousand tickets and issue a thousand free transfers over the Capital Traction Company. Say, also, that they sell and issue 1,200, in which event you would carry 200 more passengers for them than they would carry for you. Would there be any injustice if in the adjustment of accounts the law should provide that the one having the greatest number should have the excess number redeemed?

General HARRIES. That is a reduction of fare. It reduces the income of the company and the cost of the transportation to the public.

The CHAIRMAN. You divide on the transfers between your lines?

General HARRIES. No; we take no account of them at all.

The CHAIRMAN. Instead of taking no account at all you would get the half fare for the transfer.

General HARRIES. That is leading you to the zone system. You would have to figure out just how far does the Capital Traction Company carry and how far do we carry. That is the European zone system.

The CHAIRMAN. I think it is an adjustment between the companies. One month you may carry more and another month they may carry more. It would adjust itself.

General HARRIES. The Capital Traction Company may carry a man two squares on Pennsylvania avenue and get his fare, and we carry him out to the District line.

The CHAIRMAN. You transfer to all your own lines free, do you?

General HARRIES. Yes, sir.

The CHAIRMAN. What difference is there between your transferring on your own line and transferring to the Capital Traction Company?

General HARRIES. Because we figure on the whole mass of business, and all the receipts come to us, and all the disbursements are by us.

Mr. SIMS. Why do you not give dividends in mass?

General HARRIES. If they were all dividend-earning roads, dividends would be paid by them. I think I can make that plain.

Mr. SIMS. It is plain now.

Mr. MADDEN. What is the capitalization of the entire combination of the railroads within your system? Make it in a lump, including the Brightwood line—

Mr. SIMS. Including all of them.

General HARRIES. On December 31, 1906—that is, the close of the last year—the total of bonds and stocks of the company and its subsidiary companies was \$31,632,000.

Mr. MADDEN. How much of bonds and how much of stocks?

The CHAIRMAN. The stock is \$15,000,000.

Mr. MADDEN. What are the gross earnings and net earnings over

and above expenses? It was \$16,000,000 of bonds and \$15,000,000 of stock?

General HARRIES. Yes, sir.

Mr. MADDEN. What rate of interest do you pay on the bonds?

General HARRIES. Four per cent. There are a few bonds of the underlying and unacquired companies that call for more than that.

Mr. MADDEN. It is a practically 4 per cent indebtedness?

General HARRIES. It would be nearly 5 per cent in the total.

Mr. MADDEN. That would be the average rate on this \$16,000,000?

General HARRIES. Yes; that covers the underlying companies. Our interest charges amount to \$914,000.

Mr. MADDEN. Then it is about 6 per cent.

General HARRIES. Hardly.

Mr. MADDEN. Just about as near as you can get. Nine hundred and sixty thousand dollars would be 6 per cent.

Mr. OLCOTT. Can you tell me what the total bonded indebtedness of the road is?

General HARRIES. Sixteen million dollars.

Mr. OLCOTT. And stocks \$15,000,000?

General HARRIES. Yes.

Mr. SIMS. The Washington Electric Railway is bonded at \$15,000,000, and the bonded indebtedness of the Anacostia is \$2,000,000, and that of the Georgetown and Tennallytown is \$200,000, and that of the City and Suburban Road is \$215,000.

General HARRIES. The reorganization plan shows that the \$31,632,000 covers all the underlying securities.

Mr. SIMS. The stock outlying of these other companies—as to that does it not show—

Mr. POT. How much of all stock is there outstanding?

General HARRIES. There is no great quantity of stock outstanding.

Mr. POT. You spoke of some unacquired stock and alluded to it as minority stock.

General HARRIES. In the City and Suburban there are a number of individual holders who still have their stock.

Mr. POT. That is part of the capital stock of the company, is it not?

General HARRIES. It is of that particular company; but the securities of the Washington Railway and Electric Company cover the whole thing as with a blanket.

Mr. MADDEN. Is the Washington Traction and Electric Company a holding company?

General HARRIES. It is an operating company.

Mr. MADDEN. Does it own stock in all the subsidiary companies?

General HARRIES. Yes.

Mr. MADDEN. Does it hold the stock in the subsidiary companies?

General HARRIES. It does.

Mr. MADDEN. Now, then, the Washington Traction and Electric Company is a holding company, and all these other companies declare dividends—

General HARRIES. There are no dividends.

Mr. MADDEN. If they earn dividends they declare dividends out of the earnings. They pay them into the Washington Traction and Electric Company, and it pays them back to the stockholders. Is that the method?

General HARRIES. That would be the method if these underlying companies earned any dividend.

Mr. MADDEN. What I want to know is whether the Washington Traction and Electric Company is a holding company.

General HARRIES. It holds the majority of the stock.

Mr. MADDEN. It is a trust, then?

General HARRIES. It is a trust, created by act of Congress.

Mr. MORRELL. How much stock of the underlying companies does it own? A bare majority or what?

General HARRIES. It owns all except \$217,000 of unacquired stock.

Mr. MADDEN. A little while ago you said you paid \$914,000 on the bonds. How much do you pay on the preferred stock? You did not state that. You were interrupted, or I suppose otherwise you would have stated it.

General HARRIES. Here is a complete statement, which I was about to present.

Mr. MADDEN. I want the statement of what you pay on the stock.

General HARRIES. We pay 5 per cent on the stock.

Mr. MADDEN. That would be \$425,000?

General HARRIES. Yes.

Mr. MADDEN. How much do you pay on the common stock?

General HARRIES. Nothing at all.

Mr. MADDEN. And how much of the surplus annually, after the payment of the interest charges and the dividends—what is the amount of the total surplus that has accumulated?

The CHAIRMAN. \$13,519,000.

General HARRIES. From the Congressional report I will read: "The dividends on preferred stock"—

Mr. MADDEN. What we want to know now is the accumulated surplus.

General HARRIES. \$50,000 was credited last year to depreciation reserve.

Mr. MADDEN. No. What is the surplus—the unexpended and undivided surplus? What is it? What do the figures show that it is? It is not what you have expended, but what you have not expended that we want to know.

General HARRIES. \$63,000.

Mr. MADDEN. Altogether?

General HARRIES. Yes; it would have been even more than that if we had not had to discount an issue of bonds. That deducted materially from our surplus.

Mr. MADDEN. What do you mean by that?

General HARRIES. We could not get the face value of the bonds; some of the bonds that were in the treasury, held there for betterments and to retire maturing securities of the underlying companies.

Mr. POU. What basis do you give us as being the surplus?

General HARRIES. It is actually \$63,000.

Mr. KLINE. I would like to ask you five simple questions before you go on. What is your mileage?

General HARRIES. One hundred and forty-two miles.

Mr. KLINE. What are your cars earning?

General HARRIES. \$2,148,935.

Mr. KLINE. How many cars do you operate?

General HARRIES. Sometimes two cars in a train, counted as one car; about 250.

Mr. KLINE. What are your operating expenses? What is the percentage?

General HARRIES. Fifty-three.

Mr. KLINE. What are your net earnings after paying interest on your bonds, preferred stock, and the usual operating expenses? Have you got the figures?

General HARRIES. Yes; I have them all here. You mean after paying interest?

Mr. KLINE. Yes.

General HARRIES. Four hundred and seventy-eight thousand dollars, from which you deduct \$425,000.

Now, to proceed, Mr. Chairman, with the discussion of the bill, I have not had a chance to get at the details of the bill yet.

The CHAIRMAN. This statement that you have made to Congress gives the total receipts from all sources during the year at \$1,237,840.14.

General HARRIES. I am giving you the total of the parent and subsidiary companies—all the companies that we control.

Mr. Pou. I would like to ask you one additional question, General, before you get away from this point. You say that the common and preferred stock in this company is \$15,000,000?

General HARRIES. Yes, sir.

Mr. Pou. Will you tell us how much actual money that represents?

General HARRIES. Absolutely. I can give it right now. I have the statement in my hand. Prior to the time of the reorganization of the old Washington Traction Company, which some of you will remember was the original consolidating company, there was a necessary bond issue, and the holder of every thousand-dollar bond speedily faced—because of the liberal manner in which we went into the work of construction and reconstruction—a receivership, a reorganization; and that has had to come, I believe, to nearly every company that has ever tried to get more than two companies into a consolidation. Now, for his thousand-dollar $4\frac{1}{2}$ per cent bond which he had in the old company, in the reorganization (which was passed upon, I may say, by this committee and by Congress) he received \$550 of a new 4 per cent bond. He had given up a $4\frac{1}{2}$ per cent \$1,000 security and received a \$550, 4 per cent bond. He received also \$550 of preferred stock—he got that in 1902—which was to pay interest from June, 1904 (its interest was to be cumulative after June, 1904), and two shares of common stock; so that he received a face value of \$1,300 for the thousand dollars actually invested, the thousand dollars being divided into a \$550 bond bearing 4 per cent, and \$550 of stock which carried 5 per cent after two years, and two shares of common stock of extremely problematical and remote value.

Mr. SIMS. What was the value of the stock surrendered?

General HARRIES. A thousand-dollar bond.

Mr. SIMS. What was the value of it?

General HARRIES. He paid a thousand dollars for it.

Mr. SIMS. What I want to know is, what was the actual value of the bond he surrendered at the time he got these new bonds and stock.

General HARRIES. It was a thousand dollars.

Mr. SIMS. Name some of those bonds.

General HARRIES. It was the bond of the Washington Traction Company, the old $4\frac{1}{2}$ per cent collateral trust bond.

Mr. Pou. Were they selling at par at that time, General?

General HARRIES. I think they were. When the receivership came along the bonds dropped.

Mr. SIMS. That is what I am talking about. When this reorganization actually came about what was the value then?

General HARRIES. His thousand dollars was still there.

Mr. MADDEN. Do you maintain, General, that there were \$17,000,000 of those bonds out, or rather \$15,000,000 of the bonds out, at the time of the reorganization?

General HARRIES. Before the reorganization.

Mr. MADDEN. No; you do not get me just right. You say that each holder of a thousand-dollar bond received in return for the surrender of that bond a \$550 bond?

General HARRIES. Yes, sir; of a lower rate.

Mr. MADDEN. And a \$550 certificate of preferred stock? That would make \$17,000,000 according to the way you have figured it; \$8,500,000 of bonds and \$8,500,000 of preferred stock; and that would require the present holders to surrender \$16,000,000 worth of bonds for the bonds and stock that they now have, besides the common stock?

General HARRIES. No. They surrendered in excess of that.

Mr. MADDEN. According to your own figures, they surrendered \$16,000,000 to get \$17,000,000.

Mr. SIMS. What was the use of exchanging a security at par for a security at less than par? You have stated that they gave up bonds that were at par—

General HARRIES. We couldn't earn the interest on the old bonds; hence the receivership.

Mr. SIMS. What I am trying to find out was the market value of what they gave up. You say it was \$1,000.

General HARRIES. I was answering Mr. Pou's question as to the amount of money actually put in.

Mr. MADDEN. We are trying to get at that, to analyze it.

Mr. MORRELL. General, I would like to ask you a question. At the time of the receivership, have you any knowledge of what the market value of the \$1,000 bonds was?

General HARRIES. I can not give it to you.

Mr. W. F. HAM, comptroller Washington Railway and Electric Company. It was sold at about 60. It first sold at par, and after the receivership it went down to 57.

Mr. SIMS. What did the new one sell for immediately?

Mr. HAM. The new \$550 bonds sold at about 82 at the start and then fell to 71, and afterwards went up to 90. It is now about 85.

Mr. SIMS. What did the \$550 preferred sell for?

Mr. HAM. The original sales were at about 50, and it went as low as 36. It afterwards went up to 95. Now it is about 85.

Mr. SIMS. What did the common sell for?

Mr. HAM. There was no common for sale for a long time. I think it may have sold on the local board here at as low as 12 or 13.

Mr. SIMS. It was as low as 10. What is it now?

Mr. HAM. About 40.

Mr. Pou. Did the old bonds ever sell as high as par?

Mr. HAM. Yes. At the time of the receivership they were at about 65 or 68.

Mr. SIMS. They went into the receivership after they commenced getting better. As the market value of the securities went up, the receivership took place?

Mr. HAM. I can not give exact dates, but that is the course.

Mr. SIMS. Therefore the receivership came as the result of the advancing market?

Mr. HAM. I do not think the price on the local exchange could be assigned to anything particular that might have happened.

Mr. SIMS. Is it not a fact that a receivership usually depresses stock instead of booming it?

Mr. HAM. After the receivership they did go to 57. I mean at about the time of the reorganization of the Washington Railway and Electric; then they had gone up to about 65.

Mr. SIMS. That was after the new proposition?

Mr. HAM. Yes.

General HARRIES. I would like to show, in answer to Mr. Pou's question, what a man got. He gave up a 4½ per cent gold bond. He got the interest on his bond, and on June 1, 1902, the interest on \$550 of preferred stock, and that continued and has continued ever since. On June 1, 1904, I say, he got the interest on his \$550 of preferred stock. He waited two years for that; and the interest on preferred stock and bonds has continued down to the present time; so that this investor, this man who was compelled by conditions to accept a 4 per cent bond and this stock of indeterminate value, has received 3.46 per cent on his investment.

Mr. SIMS. Which was \$600?

General HARRIES. Which was \$1,000. He had \$1,000 in the bond.

Mr. SIMS. I speak of the market value.

General HARRIES. If a man was compelled by stress of circumstances to sell his bond at \$600, that does not diminish the amount of money that was put into it originally.

Mr. Pou. I do not know what other gentlemen desire as to information, but the information I would like to ascertain is how much money this stock represents, so far as your company is concerned.

General HARRIES. This statement gives it exactly [submitting the following]:

At the time of the reorganization of the Washington Traction and Electric Company in February, 1902, the holder of a Washington Traction and Electric Company 4½ per cent \$1,000 bond received new securities as follows:

Washington Railway and Electric Company:

4 per cent bond.....	\$550. 00
Preferred stock.....	550. 00
Common stock.....	200. 00

The interest paid on the new securities to date is as follows:

June 1, 1902. \$550 4 per cent bond.....	\$5. 50
December 1, 1902. \$550 4 per cent bond.....	11. 00
June 1, 1903. \$550 4 per cent bond.....	11. 00
December 1, 1903. \$550 4 per cent bond.....	11. 00
June 1, 1904. \$550 4 per cent bond.....	11. 00
December 1, 1904. \$550 4 per cent bond.....	11. 00
December 1, 1904. \$550 preferred stock.....	13. 75

June 1, 1905. \$550 4 per cent bond.....	11. 00
June 1, 1905. \$550 preferred stock.....	13. 75
December 1, 1905. \$550 4 per cent bond.....	11. 00
December 1, 1905. \$550 preferred stock.....	13. 75
June 1, 1906. \$550 4 per cent bond.....	11. 00
June 1, 1906. \$550 preferred stock.....	13. 75
December 1, 1906. \$550 4 per cent bond.....	11. 00
December 1, 1906. \$550 preferred stock.....	13. 75
Total.....	173. 25

The above statement shows that from February 1, 1902, to February 1, 1907, a period of five years, the interest has amounted to \$173.25, or \$34.65 per annum, equal to 3.465 per cent on the investment.

Now, shall I proceed, Mr. Chairman?

The CHAIRMAN. Yes; as rapidly as possible.

General HARRIES. I have a few notes here, and I will skip over them. As to the proposition of 25 tickets for a dollar, I may say that in 1906 our company collected 38,686,475 tickets. Now, assume for a moment that 50 per cent of those who bought tickets would have patronized the 25 tickets for a dollar (you must remember that it is the well-to-do man that buys the tickets; the poor man has not the ready money to invest), there would be a loss on that proposition of \$32,238.

Do you know what tickets mean to the public? Let us compare Washington with Baltimore. They are only 37 miles apart. There is not much difference between them, although Baltimore has lesser rents and is a cheaper city in which to live. In seven years we carried 228,000,000 ticket passengers, and the saving to the public has been nearly \$2,000,000 by reason of the six tickets for a quarter. In Baltimore they have a straight 5-cent fare, and Baltimoreans seem to be satisfied.

There is no suggestion in anything said here of any honorable method by which we can reduce our fixed charges, and there is no legislation decreasing the price of material or labor. But there is talk of free transfers and reduced fares and vastly increased operating expenses and enormously increased taxation. And that is the situation we are facing to-day.

Now, the overhead trolley, except in New York, is universal. The country has it everywhere, and the cost of the finally constructed overhead trolley line, comprising tracks and equipment, would be about \$45,000 per single-track mile.

Mr. KLINE. That does not include the cars and rolling stock?

General HARRIES. Cars and power and everything.

Mr. OLCOTT. How about the underground?

General HARRIES. The cost here is three times as much, with necessarily three times the fixed charges—three times the amount of interest to be earned—yet we sell tickets for 4½ cents and we are confronted with a 4-cent proposition.

Mr. OLCOTT. You mean it costs \$135,000 a mile to build your underground trolley and provide rolling stock?

General HARRIES. Yes, sir. The last construction work completed by us is that of the Eleventh street line, from Eleventh and Florida avenue to Eleventh and Lydecker avenue, in the summer of 1904. That was eighty-three one-hundredths of a mile of double track, making the cost of construction only—including only tube and rail,

and not counting equipment of any kind—\$53,360 per mile of single track.

Mr. SIMS. That was underground, with actual cash paid out?

General HARRIES. Yes.

Mr. MORRELL. The difference between that and \$120,000 is what it costs to equip a road?

General HARRIES. No, sir. I have not finished this statement, General. This was an extraordinarily cheap piece of construction. There were no switches or cross overs, and none of the things that we measure by minute fractions and buy by the ounce—special work—nothing of that kind; no gas mains or great water mains to be moved, no sewers to be readjusted. This was the very cheapest piece of construction that has ever been done here or anywhere else; conditions were uncommonly favorable.

Mr. MADDEN. Notwithstanding the high price of materials and labor?

General HARRIES. Prices in 1904 were not nearly as high as they are now.

Mr. POU. Did you not encounter some heavy grading, General, in the construction of that work?

General HARRIES. No, sir; the street was practically graded when we went in there.

Mr. MORRELL. Did you cite that as an average cost?

General HARRIES. No, sir; as the very cheapest.

Mr. MORRELL. What is the average?

General HARRIES. The average cost of construction alone is \$65,000 per single-track mile.

Mr. SIMS. What is it overhead?

Mr. POU. Does that include the power house?

General HARRIES. Not a thing except the bare tracks.

Mr. POU. What would you put the average per mile of construction, including everything from the power house down to the lowest item of underground?

General HARRIES. Not less than \$122,000 a single-track mile, including power stations, offices, real estate, feeders, conduits, and all the things that go to make up complete construction—cars and everything.

Mr. MORRELL. For what length of road?

General HARRIES. That would be for our system.

Mr. MORRELL. Would not that cost be reduced according to the length of road to be built?

General HARRIES. I think not, because we have no surplus of car barns or power stations.

Mr. SIMS. How many miles of track have you?

General HARRIES. Sixty miles of single track underground; 86.52 miles of single track overhead—a total of 146.52.

Now, Mr. Chairman, if I can go ahead on the next section, I will say that section 3 requires a five-minute schedule from 6 o'clock in the morning to 1 o'clock the next morning, and every thirty minutes from 1 a. m. to 6 a. m. That would mean 10,264 car miles a day additional. The average cost would be 13.58 cents per car mile, so that it would mean \$1,393.98 a day, or \$508,805 a year increase in operating expenses. This does not include any capital expenditure—

anything for cars or additional power, simply increased operating expenses. Of course such a proposition as that would bring our operating expenses up from the common average of 53 or 54 to 83 per cent of our gross earnings.

Mr. OLCOTT. General, can you run your system and give sufficient cars to give everybody a seat, or is it necessary in order to make a remunerative operation to have people standing most of the time?

General HARRIES. Let me say we have never looked at it from that point of view. Our proposition is to give the maximum possible service under our financial conditions. It will not ever be possible. Mr. Olcott, in any city in the United States to give everybody a seat during the rush hours. It can not be done.

Mr. OLCOTT. I understand that; but it is frequently the case in the middle of the day. I never get it in coming from my house on Connecticut avenue to the Capitol.

General HARRIES. You move with the crowd.

Mr. OLCOTT. I had to stand until I got down to F street the other day. That is not an unusual occurrence. I waited five minutes before the car came.

Mr. MADDEN. I understood you to say in reply to his question as to whether you could get such a service as to make it possible for people some time during the day to get a seat on the car. Your reply to that was that you endeavor to make the service commensurate with the financial interests of the company. Was that so?

General HARRIES. No; we do give the service that——

Mr. MADDEN. I will call on the stenographer to read that question. (The stenographer reads:)

General HARRIES. Let me say that we have never looked at it from that point of view. Our proposition is to give the maximum possible service under our financial conditions.

Mr. MADDEN. That is exactly what I construed it to mean.

Mr. TAYLOR. What is the time between cars?

General HARRIES. Four minutes up to 8.04 in the morning; from 8.04 to 8.26, 2½ and 3 minutes; from 8.26 to 8.36, 2 minutes; from 8.36 to 9.56, 3 minutes, and from 9.56 to 1 p. m., 4 minutes.

Mr. TAYLOR. You do not keep up that schedule very closely.

Mr. MADDEN. The cars do not run that way. I waited 22 minutes the other night, and I waited 15 minutes the other morning——

General HARRIES. That delay the other night was due to the pulling of a plow at the Capitol switch.

Mr. MADDEN. What was the other delay due to the other night?

General HARRIES. That was due to something of the same kind.

Mr. OLCOTT. That is an accident that can not be prevented.

The CHAIRMAN. The chairman of the Petworth Citizens' Association has handed me this memorandum with the request that I propose the question to you. That is, that "there are 52 miles of your line of underground construction, \$122,000 a mile, costing \$6,344,000: 90 miles overhead, at \$90,000 a mile, costing \$8,100,000, or a total of \$14,444,000"——

General HARRIES. Is there anything in there for power or equipment, Mr. Chairman? The \$90,000 is purely construction for single track.

Mr. POW. I have you down, General, as putting it at \$45,000 as

the average cost per mile, including everything, of an overhead trolley.

General HARRIES. Yes; but not always including car equipment. It is \$90,000 per mile for a double track. That does not include everything, but only the power and equipment.

The CHAIRMAN. The question that the gentleman desired to propound was, what became of the difference between the \$14,400,000—

Mr. OYSTER. I understood the General to say that he estimated \$153,000 for the underground, and that that covered everything. I estimated it at \$90,000 for the overhead, and estimating it at \$90,000 it amounts to \$14,000,000.

General HARRIES. I will try to answer that. The difference between the physical valuation and the face value of our securities is due to what we may term aggregated or superimposed capitalization, which necessarily includes the original construction and the reconstruction, as well as the construction, of some of these other lines. The Brightwood railroad, for instance, was originally a horse line. Then came a period of experimentation with a mechanical and unsuccessful motor. Then an electric line, and when it wore out—as it did wear out—it was replaced by a modern system. Each of these phases cost money, and the accumulated money is the capitalization which some people fail to comprehend. The capitalization put the road there ahead of its time and made the region all it is. The road was purchased by our company, and the price that was paid for that road was, in my opinion, an extravagant one. I didn't pay it, I didn't have anything to do with it, and I did not come into the company until all of these things had happened.

Mr. MORRILL. What was the price paid for the road?

General HARRIES. I don't know; it was long before my time.

Mr. MORRILL. Have you any idea?

General HARRIES. None in the world, except that any price was too much. I know that the capitalization represents precisely the amount of money paid for those properties. In addition to the railroads, the Potomac Electric Power Company is in that capitalization; it is owned by the Washington Railway and Electric Company by authority of law.

A BYSTANDER. General, will you please tell the committee how much the Tennallytown road, the Brightwood road, and all of the roads operated by your company and who buy electricity from the Potomac Power Company pay for their power?

General HARRIES. I will say that they pay a fair price.

A BYSTANDER. I want the figures.

General HARRIES. I am not giving you figures. I will give them to the committee, but I do not want to answer questions propounded by, nor give figures to, irresponsible persons.

Mr. OYSTER. The General speaks of the price paid for the Brightwood line as being extravagant. What did you pay when you bought the road?

General HARRIES. I don't know; that was done before my time. I understand that there was something like a half million dollars paid for practically a worthless, worn-out, piece of road, with nothing left but the franchise, and that an entirely new road was constructed, and that our people are expected to pay dividends on money

paid for a franchise that ought to have returned something to them. That is the way the value of the Brightwood road is figured out. And I want to say that our capitalization contains other elements. For instance, we control the Great Falls Power Company. Also there are all of the Maryland lines in the total I have given.

Mr. SIMS. Do you think the people of Washington should pay street car fares in sufficient amount to enable you to experiment with these other concerns?

General HARRIES. May I ask you if there is any complaint as to the rates of fare paid?

Mr. SIMS. There is a great deal of demand for free transfers, and that is a complaint to that extent.

General HARRIES. Now, let me refer to the bill. Section 4 of the bill is remarkably broad. There is no allowance made for anything—for unavoidable failure or anything else; the human element is entirely missing; we should all be guilty, no matter what happened. If a coal cart falls and blocks the track, then we are all to be taken to jail, and there is no provision there that gives us any chance at all; we are guilty just the same.

Now, with regard to section 5. That is a most destructive section, and one of the most destructive that was ever framed in any legislation.

Mr. Pou. Before you get away from the other point, you asked Judge Sims a question which suggests something that I would like to call attention to. You asked him if there was any complaint against the rate of fare that is paid. Does not your company recognize the fact that it is the law of the land that you can only exact from the people what is a reasonable and fair return upon the actual amount of capital invested?

General HARRIES. That is not the law of the land, but that is a fair conclusion, Mr. Pou.

Mr. Pou. You say it is not the law of the land. The Supreme Court of the United States has indicated very clearly that it is.

General HARRIES. It is equitable.

Now, it seems to me to be very difficult, Mr. Chairman, to regard this tax section seriously. I find it so. There is no reason in the world why such a section, in my opinion, should be framed. Last year our gross receipts in the District of Columbia were \$2,018,000 on which we paid 4 per cent, or \$80,720. Then we paid \$10,342 as real-estate tax; \$30,943 for interest on paving, \$21,178 for paving repairs, and \$23,598 as a crossing-policeman tax.

Mr. TAYLOR. After the policeman were appointed by the Commissioners?

General HARRIES. We have nothing at all to do with the appointments. We pay the policemen; and I want to say that it is a condition such as does not obtain in any other city in the world.

So that our total tax bill was \$166,783, which was \$8.50 subtracted from every \$100 received, leaving out of consideration the enforced reduction of revenue on account of tickets. The public profited to the extent of \$323,000 last year by the use of tickets, a compulsory reduction of our revenues and just the same as if we had taken so much cash out of our treasury and put it into the hands of the collector of taxes.

The tax total, therefore, is \$489,000, with the tickets, and the discount on account of the tickets amounts to 16 per cent of our receipts. So that the tax total really amounted to \$489,000, or 24 per cent of our gross receipts. I say that this section that I am referring to is a revolutionary section, and the 4 per cent becomes 20 per cent; the \$80,000 becomes \$489,000.

Mr. SIMS. That is by your manner of figuring. How much does the treasury get out of that \$489,000?

General HARRIES. We pay \$166,784 out of our treasury.

Mr. SIMS. Pay that now?

General HARRIES. Yes, sir; $8\frac{1}{2}$ per cent.

Mr. SIMS. Into the treasury of the District of Columbia?

General HARRIES. Yes, sir. So you see how far this goes, from \$166,780 to \$489,000.

Mr. SIMS. Is not your report, filed here on the 31st day of January, of last year's taxes correct?

General HARRIES. Yes, sir.

Mr. SIMS. It gives as taxes paid the sum of \$54,744.48.

General HARRIES. I am speaking of all the companies.

Mr. SIMS. What did the Treasury get? The Treasury did not get the wages paid the policemen?

General HARRIES. Oh, yes; we paid it.

Mr. SIMS. But it did not go into the Treasury at all.

General HARRIES. It comes out of our treasury, and that is the point of importance to us.

Mr. SIMS. I know; but I am referring to the taxes that are paid into the Treasury of the United States.

General HARRIES. Well, I was thinking of our treasury, which is more important to me than the Treasury of the United States.

Mr. SIMS. Your treasury and the Treasury of the United States are not synonymous terms?

General HARRIES. Certainly not.

Now, I want to bring the tax conditions down to another basis—the tax on the value of securities. Baltimore, with one-third of the investment and with 5-cent fares, with no asphalt paving practically, which is an enormously expensive proposition that we have to deal with, and with overhead trolleys, pays 9 per cent of its gross. That is its tax.

Mr. SIMS. Does that go into the Baltimore public treasury? It is taken out of their treasury, but it does not go into the public treasury, does it? Of course we can not compare these things unless the facts are exactly parallel.

General HARRIES. It is a burden on the company, and to the taxpayer it is the same, no matter where the money may go.

The statement has been made that we do not pay taxes in the same proportion as compared with the individual, the householder. The market value of our securities on a day fixed recently, and which was an average day, was \$25,000,000. Now, 60 per cent is the local valuation, so that 60 per cent of that is \$15,000,000, and at the regular rate of \$1.50 would bring the amount to \$225,000, and that would go, as you see, directly into your Treasury.

Mr. SIMS. But you pay \$54,000.

General HARRIES. But we actually expended \$364,000 more than the amount which would satisfy the collector of taxes.

Mr. SIMS. But if that same value was in houses or real estate, that much would have gone into the Treasury? Your company only paid \$54,000.

General HARRIES. We must see it from our point of view, of course. We pay this money. What is done with it is not important to us.

Mr. SIMS. It does not go into the Treasury of the United States or that of the District of Columbia.

General HARRIES. And they also extract a crossing policeman tax.

Mr. SIMS. You do not call that a tax, do you?

General HARRIES. Absolutely. It is nothing else.

Mr. SIMS. That is done for the purpose of protecting human life, to keep your cars from killing and maiming people.

General HARRIES. It is not worth \$50 a year to us; the whole thing is not worth 50 cents a year, any more than Mr. Harper's opinion is worth that—and I might say that that is worth less.

Mr. SIMS. Do you know how much it is worth?

General HARRIES. Nothing. In most cases the policemen are in the way.

Mr. SIMS. Do you mean that they do not prevent accidents?

General HARRIES. We esteem them as of no value.

Mr. SIMS. Do they not prevent accidents?

General HARRIES. No, sir; I do not believe they do.

Mr. SIMS. They are absolutely worthless, then?

General HARRIES. They are worth nothing in the world, and they were put there in the first instance as a political proposition.

Mr. SIMS. Are they appointed upon political considerations?

General HARRIES. Well, I would not say that, but the Commissioners have authority to appoint them.

Mr. SIMS. Are they connected more with one party than another? If not, how is it political?

General HARRIES. Appointments are not made under civil-service rules.

Mr. SIMS. They do not have to be.

General HARRIES. No, not at all. But I do not want to discuss that.

Now I want to show you something that will, I am sure, be interesting to Judge Sims, as showing why we deserve, by reasons of the greater comparative length of our suburban lines, some special considerations.

The CHAIRMAN. Your mileage, as I understand it, is 143 miles of single track, on which your gross earnings were two million and some odd dollars, which amounts, as I figure it here, to something over \$14,000 per mile. The Capital Traction Company, as I understand it, has 42 miles—it was stated as 38 miles this morning, but I think 42 miles is correct. Their earnings were about \$40,000 per mile, as against \$14,000 per mile for the other company's lines.

General HARRIES. That is unquestionably true.

The CHAIRMAN. I would like to have you state to this committee whether you can afford to carry a passenger at the same rate that the Capital Traction Company does upon a road earning \$40,000 per mile as against yours earning \$14,000 per mile. Should there not be different rates of fare on the two different lines?

General HARRIES. I dislike to go into comparisons with a company in the same line of business and operating in the same territory.

The CHAIRMAN. I would like to say that in some of the Western States, and particularly in the State of Wisconsin, the roads have been classified. For instance, say the roads are classified in this way: A first-class road earns a certain rate per mile, \$8,000 or \$10,000; a second-class road, \$5,000, and a third-class road, \$3,000, say; and they are allowed to carry passengers at 3, 4, and 5 cents a mile, according to the classification of their roads. Here is a road earning \$40,000 a mile receiving the same rate for carrying passengers that a road earning \$14,000 per mile receives, and I would like to have your opinion as to that.

General HARRIES. As to the remedy?

The CHAIRMAN. No, sir; as to the equitableness.

Mr. CAMPBELL. For instance, we have had the matter up as to the difference of price of gas manufactured in Georgetown and in Washington, and it was admitted that gas should be cheaper in Washington because of the increased consumption within a small area as compared with the consumption in Georgetown within a large area. I merely draw attention to that as an analogy.

General HARRIES. I do not think that a difference in the rate of fare is practicable, Mr. Chairman.

The CHAIRMAN. Why not?

General HARRIES. You would deplete the revenues of the poorer line immediately if you reduced the rate of fare upon the Capital Traction Company lines. These lines of ours parallel their lines, and we would cease to do business under such a proposition. The travel on the Capital Traction Company's lines would increase and ours would become less.

Mr. SIMS. But reciprocal transfers would bear alike on both companies.

General HARRIES. If the exchange was nearly equal. As to that no one seems to know, and we have not found anybody with vision strong enough to see even the outlines of the probable results.

Mr. SIMS. We have never had reciprocal transfers, and that is the reason why we don't know.

General HARRIES. There are a great many problems of that sort that have never been solved or have never been tried.

Mr. SIMS. I would like to say, Mr. Chairman, that there is a gentleman here who wishes to discuss the construction of these lines, and while I do not want to stop the general argument—

The CHAIRMAN. I will say that those in favor of these bills have occupied about two-thirds of the time, and there are other gentlemen in opposition who wish to be heard.

Mr. SIMS. Of course I do not want to cut off General Harries.

The CHAIRMAN. General Harries has been here three times, and I would like to have him given an opportunity to finish his statement.

Mr. SMITH. Just one question. Some statements were brought here this morning by these gentlemen appearing in favor of the bill that it appears will not go into the record, and I merely wanted to know if that would be the case with General Harries's statement. I was referring to that which he says and that which would go into the record in statement form and which there would not be sufficient time to deliver to the committee.

Mr. OYSTER. I would like to suggest that the figures that I had prepared regarding the price of gas elsewhere I did not have an

opportunity to present to the committee, and if it would be of interest to them, I hope they will admit the figures and allow a statement that I have prepared to go into the record.

General HARRIES. I just want to say, broadly, that I think we are really entitled to especial consideration. I know that people smile when a representative of a corporation makes a statement of that sort, but I believe we are. If those of you who are here now had been here in the days not so long departed and had seen the operation of the old companies (as many of you did), and could compare the conditions as they now are with the conditions as they were, there would be no doubt in your minds as to what has been done.

The CHAIRMAN. Do not let us get away from the bill. There is one branch of the subject that will have to be considered by the committee when they meet, and that is the question of giving the Commissioners the right to approve of the schedules made.

General HARRIES. May I say just a word before you touch that? I want to show that we have spent over a half million dollars in new cars in the last five years. I wanted to discuss the new power station that is being put up at a cost of more than a million dollars, with which we can give a better service, getting rid of many difficulties, and many improvements. I would also like to refer to the Union Station bill, and I mention this because (if I may be permitted to discuss something that happened in the House last Monday) when that bill gets out of the House, if the House feels as it did last Monday, the measure will look like a Christmas tree, with amendments in place of toys and candles. It is going to cost a half million dollars to get to the Union Station and to do the same business that we are doing to-day. We are serving to-day two separate depots with our lines, but in order to get to this new station we must put in a half million dollars more, while we will not carry to that station any more people than we now do to the two. Our lines run directly past both stations. There is no suggestion that the consolidation of the stations will increase the passenger traffic.

Mr. SIMS. But you will have more people to carry.

General HARRIES. That would be so anyhow; but the growth of population is not going to be accelerated by the building of a union station.

Mr. SIMS. Oh, yes.

General HARRIES. The cost of our connection with the Union Station is a tax, and it will not bring us in an additional nickel, although we have to spend that very large and unprofitable amount of money. When the question of removing the steam roads into a union station came up, what happened? The gentlemen will remember that \$2,500,000 went to the companies so as to assist them financially.

The CHAIRMAN. Oh, no; not a dollar.

General HARRIES. In cost?

The CHAIRMAN. Not a cent. All the contribution that was made was for the elevation of the tracks and in doing away with grade crossings.

General HARRIES. It amounted to the same thing, Mr. Chairman. I am not criticising it at all, and I think it was an equitable and a proper thing to do; but we are asked to do the same thing at our own cost, without any hope of increased profit excepting the profit that comes from the growth of the city generally, by which everybody

benefits. Now it is proposed to add to that measure burdensome and murderous amendments—

Mr. POT. To what amendments do you allude?

General HARRIES. The transfer amendment, the tax amendment, and the amendment which gives the Commissioners control over our schedules—

Mr. SIMS. Do you regard the transfer amendment as murderous?

General HARRIES. No; but I say it is a tax, and burdensome. If the provisions of this bill, No. 23023, become effective we would have \$17,000 with which to pay \$914,000 of interest charge and to care for the depreciation upon our entire properties. We would be in a hole, that is all, to the amount of thirteen or fourteen hundred thousand dollars a year.

Now, a 3-cent fare was talked of in connection with some bill. I want to say that a 3-cent fare means 3-cent service. You may just as well face that directly now as any other time; there is no use trying to avoid it. Three-cent cars, 3-cent employees—and you can figure out just what those things mean. It is absolutely impossible; it can not be worked out. It can't be done with an overhead trolley system; with a new system where there is no superimposed capitalization—

Mr. SMITH. Before you get away from that. I have not been able to keep up with what is going on in Cleveland, but is that 3-cent fare proposition there a success?

Mr. BEIDLER. It is only on trial for thirty days, or a limited time, to find out whether it is a success or not.

Mr. SMITH. You have an overhead trolley there, have you?

Mr. BEIDLER. Oh, yes.

General HARRIES. Now, there has been discussion with regard to the rates of fare in foreign countries. Those rates are under the zone system. A man can ride so far for a half-penny, so far for a penny, and so on, and if the passenger has not paid the additional fare when he reaches his zone limit he gets off the car. That system could not operate here for a minute. The people of this country would not stand it for an hour.

Now, as to the suggestion of giving the control of the schedules to the Commissioners, I want to say that that is the vital thing—that is the life—and if it is in the power of the Commissioners, or any outside body, anyone who is not responsible to the stockholders or the owners of the property, to fix schedules; to say that instead of 250 cars you shall have 350 cars in operation to-morrow morning—if that takes place, then the whole machine is beyond the control of its owners. And in order to discuss that, to take it up seriously with the committee, I should require more time than you can give me now, because it involves so much.

The Commissioners under this bill stipulate the height, the weight, and the general design of the cars, who shall give and who shall receive transfers, locate all transfer points, stipulate when and where transfer stations shall be erected, how much they shall cost, and how they shall be maintained. They could bring absolute ruin to any company, and do it without intending to do it.

The CHAIRMAN. Let me ask you, don't you think that the Capital Traction Company could carry passengers for 3 cents?

General HARRIES. No, sir; I do not.

Suppose the present Commissioners, and they are all gentlemen and personal friends of mine——

The CHAIRMAN. At 3 cents the Capital Traction Company would receive a double income per mile above that received by your company?

General HARRIES. I shall be very glad to see them get a satisfactory income; I surely have no grievance against my friends——

Mr. POU. No human being can tell what is going to be the result of 3-cent fares until they are tried.

General HARRIES. The poor dog may die, and then you will know it has been poisoned. How will the victim feel about it, though? It is like the test for mushrooms; if you live, it is a mushroom; if you die, then your relatives have the satisfaction of knowing that it was a toadstool.

Mr. POU. As Mr. Beidler has said, the Cleveland, Ohio, proposition is on trial now, and the people can never tell whether it is going to result disastrously or not until it has had a fair trial.

General HARRIES. We are watching that trial with a good deal of interest.

Mr. TAYLOR. If the 3-cent-fare proposition proves to be a profitable thing, all roads will have to come to it.

General HARRIES. Unquestionably.

Now, Mr. Chairman, if there are no changes in the body of Commissioners, if we had three permanent Commissioners, we could talk business then, and by and by they would have sufficient knowledge of street railways so that we could trust them. But it is not known whether the Commissioners will remain in office for any length of time, and if new Commissioners come in, as they surely will, they might want to upset all the plans and rulings of their predecessors. The outlook for confusion and receiverships would be fine.

Mr. SIMS. If we should adopt the universal-transfer amendment, do you think it would be best for us to name the points ourselves and not leave it to the Commissioners?

General HARRIES. I think you had better leave it to the companies.

Mr. SIMS. But they will not give us anything.

Mr. SMITH. General, let me ask you why you do not go ahead and do this yourselves?

General HARRIES. Because we believe it to be a too dangerous experiment.

Mr. SMITH. But you say you would if we passed the law.

General HARRIES. This control by the Commissioners would resolve itself into control by a clerk—some subordinate. I do not think you want to even consider the putting of such an enormous business into the hands of a subordinate. The Commissioners must rely upon subordinates. Do you want to put into the hands of a \$1,200 or \$1,600 clerk the operation of as much railroad as we have and the control of as much money as is invested here?

The CHAIRMAN. How would it do to follow the example of the school board and have a board of five fix the transfer points, two of them to be representatives of railroads and three disinterested citizens?

General HARRIES. Gentlemen, what the Commissioners' bill stands for is municipal control. Do not let us hide that.

The CHAIRMAN. Yes; we have got to go up against an amendment involving municipal ownership when this gets to the House.

General HARRIES. And I would say that on the Chicago plan it would be entirely satisfactory, and we will sell out to-morrow. We are willing to accept this Commissioners' bill with some little amendments—just three little amendments—turning over the control to the Commissioners entirely, so far as the schedules and operation are concerned. And these amendments might be as follows: The first section might read: "That on and after the passage of this act all rights, powers, and privileges of the directors, stockholders, and officers of the street railway companies operating in the District of Columbia shall cease and determine, and then and thereafter all rights, powers, and privileges shall be transferred to and vested in the Commissioners of the District of Columbia."

Then the second section might read to this effect: "That for and in consideration of the rights, powers, and privileges, and so forth, transferred, the Government of the United States shall guarantee in gold coin of the present standard of weight and fineness, the principal and interest upon all bonds, paying 5 per cent on preferred stock and not exceeding 6 per cent on common stock;" and the third section might read: "That from and after the passage of this act, the Commissioners of the District of Columbia shall be and they hereby are relieved of all the duties now imposed upon them by law so that they may give their whole time and undivided attention to the operation of the street railways."

With those trifling amendments—

Mr. SIMS. The common stock would go to about three or four dollars for one, would it not?

General HARRIES. I think it would be a good time to get in. I do not see how you can have municipal control without municipal ownership, and if you want to get to that question we will be—

Mr. OYSTER. How would it be with the water squeezed out?

General HARRIES. The water was squeezed out when this committee and the Congress of the United States passed upon the reorganization of our company and fixed the amount of stock which should be issued, naming it in the bill, and that bill became a law.

Mr. SIMS. It is often asserted that Congress does so and so. Has Congress ever, of its own motion, taken up and passed a bill requiring the street railways to do certain things in connection with their franchises, that was not accepted by them?

General HARRIES. Oh, no.

Mr. SIMS. I remember that it was sought and begged and plead for—

General HARRIES. Because they felt that the whole system would have to go into eternal bankruptcy.

Mr. SIMS. That law was sought by the majority stockholders; in other words, the noncontrollable stockholder was forced to turn over his stock at the valuation fixed by the process contained in the act. It was sought for, and certainly Congress did not give those powers without being sought for by the majority stockholders.

General HARRIES. No doubt those whose investment was imperiled came and asked relief.

Mr. SIMS. In other words, that they would take in these railroads and treat them all alike.

General HARRIES. We have done all of that.

Mr. SIMS. Here is the Brightwood road remaining out, and you could have owned it long ago; and yet that road shows a deficit of \$38,000. If the Brightwood road had no free transfers forced upon it by the Washington Railway and Electric Company, and if they received full fare for carrying the passengers, there would be no deficit. The Brightwood road under your consolidation bill is showing a deficit because these free transfers are forced upon it, and in order to get the extra profit out of them.

General HARRIES. The transfers are demanded by the people out there. We are not forcing them.

Mr. SIMS. And the pledge to Congress was that all these roads would be consolidated and treated as one line. If that was done, there would be no deficit.

General HARRIES. That may be so, but let me say to you that the consolidation conditions would have been advanced very rapidly if it had not been for the serious and protracted illness of Mr. McDermott, our president. If it had not been for his painful indisposition, we would have been able to accomplish many things not yet done.

Mr. SIMS. But the act was passed in 1900.

General HARRIES. I appreciate that, but the whole of these proceedings were in Mr. McDermott's hands.

Mr. SIMS. And immediately after that time you did consolidate all of the paying roads into one company, leaving out the nonpaying roads.

General HARRIES. We took the roads in the center of the city—

Mr. SIMS. And on those roads you show dividends, while on the Brightwood line you show a deficit, which would not be there if you did not force upon them free transfers.

General HARRIES. And the strong roads are lending money to the weaker roads and helping them out.

Mr. SIMS. It is really all one road, in fact, then, and there is no deficit anywhere. We might as well take all of them as one road, is that true?

Mr. POU. The passenger charges on your road are fixed by law?

General HARRIES. Yes, sir.

Mr. POU. Are you charging up to the full amount the law allows?

General HARRIES. No, sir; we are not; on two lines we are not.

Mr. POU. What two lines?

General HARRIES. The Brightwood and the Tenallytown lines. We could sell four tickets for a quarter there.

Mr. POU. And you are selling—

General HARRIES. We are selling six, with a free transfer.

Gentlemen, Mr. Colvin, of the Washington, Alexandria and Mount Vernon Electric Railway Company, is here, and he would like to have a moment. That is a railway line that has not been heard from yet.

Mr. POU. Before you leave, General Harries, there is one single item here that I do not think you have gotten exactly straight. I understood you to give \$45,000 per mile as being what you considered the cost of the overhead trolley line.

General HARRIES. For a single track.

Mr. POU. And \$90,000 per mile for a double track?

General HARRIES. That is right.

STATEMENT OF MR. JOSEPH COLVIN, REPRESENTING THE WASHINGTON, ALEXANDRIA AND MOUNT VERNON ELECTRIC RAILWAY COMPANY.

Mr. COLVIN. I represent the Washington, Alexandria and Mount Vernon Electric Railway Company, that has been mentioned in the hearings before. There are only two roads in Washington—that is, the bill only refers to two roads. If that is so, I haven't anything to say; but I have understood that the bill includes all street railways in the city of Washington, in which case it would cover our line from the post-office building to the south end of the new highway bridge, where we enter the State of Virginia.

Now, first, as to the schedules which this bill, as I understand it, would require us to give during certain hours of the day, namely, a five-minute service. That section of the city through which we run would not support a one-hour service so far as the city itself is concerned, although we are now running from a ten-minute service up to a half-hour service.

Mr. TAYLOR. To Alexandria?

Mr. COLVIN. To Alexandria; that is, we haul practically no passengers within the District of Columbia—we carry a few to the Bureau of Engraving and Printing—but the other roads practically cut out all of our local traffic.

It does not appear to me that it would be fair to require us to run empty cars up and down our road every five minutes. And referring to that portion of the bill that refers to a half-hour service after 1 o'clock, I will say that if you gentlemen are familiar with the morals of our part of town, close to our office and close to the post-office, certainly you do not want to go down after 12 o'clock, and if you do, I would advise you to take a cab. That is a part of the traffic that we do not want.

Now, as to the universal transfers, if that should come to pass and the other railroads should require us to settle with them for the exchange of transfers on the basis of their mileage, we would get, as it appears to me now, about one-tenth of 4½ cents, or one-tenth of 5 cents if it is a cash fare. And I would like to ask some of these gentlemen that have gone into the mathematical questions in regard to this matter to explain to me how we could take one-tenth of 4½ cents and pay into the District of Columbia for the United States Government 20 per cent of what is left and still have sufficient money out of that to pay bridge rent of one-half cent per passenger.

Mr. SIMS. Are not your receipts for passengers that go no farther than the bridge a very inconsiderable portion of your whole passenger business?

Mr. COLVIN. A very inconsiderable portion.

Mr. SIMS. In other words, if you did not get anything for passengers within the District of Columbia between the bridge and Pennsylvania avenue you would still have a good profit on the rest of the business.

Mr. COLVIN. We would still have a good profit on the rest of the business, but that is not any reason why we should be expected to take business that we would have to pay a premium on to get.

Mr. SIMS. I can see the force of your argument in not having so many cars and the inconsiderable amount of business that would

affect your road, but it occurred to me that you might withdraw from the District of Columbia and receive passengers from the other end of the bridge only.

Mr. GREENE. But I think this road ought to be exempted from being obliged to take those transfers.

Mr. SIMS. It does not mean transfers to Mount Vernon, but just to the bridge. You would charge, Mr. Colvin, just as much to Mount Vernon from the bridge as you do from here, and there would be no reduction in your receipts from the bridge to Mount Vernon or to Alexandria or any of the service beyond the river. What is the rate now?

Mr. COLVIN. Our round-trip rate to Mount Vernon is 75 cents.

Mr. SIMS. What is it from the bridge?

Mr. COLVIN. We charge the same rate from the south end of the bridge to Mount Vernon as we would charge from the Post-Office building.

Mr. KLINE. What do you charge from the Post-Office to the bridge?

Mr. COLVIN. Five cents or a street-car ticket; but we pay one-half cent for every passenger that we haul over the bridge.

Mr. SIMS. But they do not go that far unless they want to go farther.

Mr. COLVIN. We are not complaining about that.

Mr. TAYLOR. Then you pay a half cent per passenger out of the 75 cents for the use of the bridge?

Mr. SIMS. And you are relieved from having anything to do with the bridge.

Mr. COLVIN. We are paying that much.

The CHAIRMAN. I will say to Mr. Sims that he was not on the committee when the bridge was turned over to them. It was put on an appropriation bill. They practically own the bridge. Congress, under the present law, can not permit any other road to run over that bridge, or any cars, without paying the half cent per passenger.

Mr. SIMS. I think your company should be willing to take that and never say a word.

Now, I would like to ask if Mr. Daniel can have two minutes?

The CHAIRMAN. Certainly.

STATEMENT OF MR. T. CUSHING DANIEL, OF WASHINGTON, D. C.

Mr. DANIEL. Mr. Chairman, the statement I would like to make is this: General Harries has stated that when this consolidation of these roads was brought about in Washington that he was unfamiliar with the conditions. I have lived in Washington for twenty years and have kept pretty close track of what the District committees do, and at that time I was personally identified with the matter to such an extent that I had to know what was going on.

In brief, a syndicate of nonresidents came over to take up the electric lines in Washington. They bought them out, and they made their arrangements to finance them. But three days before the Fifty-fifth Congress adjourned I went into the committee room and found an omnibus bill there. Away down in the bill, under a clause simply changing the name of the Anacostia Railway Company, the power was given for it to purchase intersecting lines and bond the same for

\$150,000, single track, per mile. Before arriving at that conclusion they had laid out all their plans to build a loop here in Washington, and they all promised the people that the cars would run to the center of the city and that this company would be the owner of all of these different lines, the eleven companies, as you know. Well, now, I thought a great deal of this friend of mine, and when I saw that item—it was about three days before Congress adjourned, and a favorable report had been made on that bill—I hesitated for a long time as to whether I should allow that to go through or have it killed; but I went to a Senator and had him defeat that bill. If it had been bonded, a plan had been arranged with a trust company in New York and with Brown Brothers, of Baltimore, by which they would have sold every dollar of these first-mortgage bonds without any trouble. In other words, they would have bonded by these first mortgages on this street railway to the extent of \$12,000,000—

Mr. CAMPBELL. I would like to inquire what relevancy this has to the matter under consideration. This is a scheme that did not go through.

Mr. DANIEL. But I will locate it in time. Mr. Phillips, who built the Metropolitan Railway lines, the best lines that the people of Washington ever had, and the first line, testified before the Senate Committee—and if you look at the record you will find it—that it cost \$30,000 to build a single track of this line. That was an underground system and the best street line that we ever have had.

Mr. POY. When was that?

Mr. DANIEL. That was in 1894.

Mr. POY. What do you mean by its costing \$30,000 a mile? Does that include the power house, the cars, or simply the cost of construction?

Mr. DANIEL. Simply the construction of the underground railway per mile.

Mr. SIMS. To build it?

Mr. DANIEL. He actually built the road and paid for it.

Mr. SIMS. Is he here now?

Mr. DANIEL. Yes, sir.

Mr. SIMS. Why would he not be a good witness for this committee to have?

The CHAIRMAN. The conditions existing in 1894 were entirely different from what the conditions are to-day.

Mr. SIMS. But if he actually built the road he can show the details.

Mr. DANIEL. He actually built this road. These gentlemen have never built any underground construction, with the exception of the little addition on Eleventh street.

General HARRIS. Oh, we built the whole Anacostia system, everything, and we spent \$4,000,000 in rebuilding.

Mr. DANIEL. I was speaking of the lines on this side of the river.

Now, as a matter of fact, as long as they could not float these first-mortgage bonds, or could not get the bill through, they put all of these parties into a holding company and tried to issue stock, but the financial institutions of New York could not float it; and I know of personal knowledge that a great deal of that \$12,000,000 was absolutely water, because it is in the hands of people who never put a dollar into the road. Now the point I want to bring to the attention of the committee is this: I have lived on the Tennallytown road for

years, and when the charter of that road was granted it was a fifteen-minute schedule. That was the understanding at the time, and that was fifteen years ago. At present we have 3,000 people who live on that line, and the schedule is a twenty-minute schedule during the day. What our association wants is through car service, as originally intended by this corporation. They had everything fixed for it and they intended to do it. We want through service into the heart of the city and a schedule of not less than eight minutes at any time during the day.

General HARRIES. The gentleman makes a very broad and yet a very clear statement. I would like to have him submit to this committee the testimony that he refers to regarding the watering of the stock.

Mr. DANIEL. I do not want to give it, but I will say that the gentleman knows all about it.

Mr. CAMPBELL. But we have to support this bill on the floor of the House, and if what you say is true, we should be able to substantiate it.

Mr. DANIEL. I know of one man who got a lot of that stock and he did not pay for it.

Mr. CAMPBELL. Who was it?

Mr. DANIEL. I do not want to give his name.

Mr. TAYLOR. If you do not want to give his name call him John Doe.

Mr. DANIEL. Well, John Doe got \$150,000 worth of stock and he never paid a dollar for it; but I want to say that I think I killed the bill, and I did all that any citizen ought to do.

General HARRIES. If that statement that you make about the stock is true it ought to be substantiated in the record. We want the facts.

Mr. POU. I do not think you will object to answering this question: Of this \$12,000,000 worth of stock, how much, so far as you know, is water?

Mr. DANIEL. The committee can ascertain that readily by getting hold of Mr. Phillips, and having him say how many mortgages were on the road at the time. I can not give you the facts, and I do not want to make any statement at random, but I know that the great portion of it is water.

Mr. TAYLOR. You say that there are about 3,000 people living on the Tennallytown road now and getting a twenty-minute service?

Mr. DANIEL. Yes.

Mr. TAYLOR. How many were there living there fifteen years ago when the road was put in?

Mr. DANIEL. I do not suppose there were one-third that many.

Mr. TAYLOR. This service has not decreased the value of the property, has it? Or I might put it this way: There has been an increased population there in spite of this service.

Mr. DANIEL. And I want to say that it is the finest section in the District of Columbia. We can not keep the people away, and the only trouble with it is the bad street-car service.

Mr. POU. Can you say that \$3,000,000 of this is water?

Mr. DANIEL. I haven't the slightest doubt.

Mr. POU. \$4,000,000?

Mr. SIMS. What do you mean by water, Mr. Pou?

Mr. POU. I mean that which represents nothing.

Mr. SIMS. Every dollar of stock that does not represent actual value in the way of cost.

The CHAIRMAN. I want to call the attention of the committee to a statement that was made before it the other day, and that is that it is not a question before this committee as to what statements may be made as to what the stocks or bonds of any corporation may be; they may be a million or a hundred million dollars, but it is a question of the actual investment value of the property, and that will apply both to the street car lines and to the gas company. Here it was shown the other day that the Chicago gas company had a bonded indebtedness of \$65,000,000. That cuts no figure as to what the price ought to be in Chicago. It is a question of what that property is worth, and what it is worth to-day.

Mr. POW. I will go as far with you as anybody in giving to the people a fair and just rate, but I think you will find that the courts have decided that in determining what charges shall be fixed for corporations you are bound to take into consideration what the property cost. You can not take into consideration what it cost now. Some property could be built now for less than it was built for twenty years ago and some property could have been built twenty years ago for less than would be required to build it now. The true rule is, What does the property represent in actual investment?

The CHAIRMAN. Yes; or actual value. I want to say, as a member of this committee, that I opposed this combination from start to finish to the best of my ability years ago. That Mr. Harries knows. After the combination had been made and after these issues of bonds and stocks had been made, which I considered fraudulent, and which wrecked not only institutions but individuals, the present owners, who represent the bondholders and the gentlemen in the management of this line, came to Congress for relief. It was at that time that the stock and bonds were cut in two in the middle and the bill was passed that Mr. Harries refers to, and I think you were on the committee at the time Mr. Sims.

Mr. SIMS. I think I was at the time we authorized the majority stockholders to acquire the stock of the minority holders.

The CHAIRMAN. We thought it was necessary to pass an act of Congress to protect the people who had unfortunately gotten into this proposition. The manipulators had obtained their money and had gotten out. I do not want to call names. Mr. Harries knows who they are. They were relieved, and it did not make any difference to them what Congress did. At that time the committee recommended the legislation which Mr. Harries speaks of, to enable them to go on with their work. In consideration of the question it has no bearing on my mind whether the stock is worth \$1,000,000 or \$100,000,000. They could go on and have authority to issue \$100,000,000 of stock that might not represent anything more than water. What we must consider is the actual investment value of the properties as we find them to-day in dealing with them. This property that he speaks of is in the hands of people and concerns that put their money in and took these bonds originally. Is not that right, Mr. Harries?

General HARRIES. Yes.

The CHAIRMAN. Now, we want to lose sight of the fact that it was 2 per cent, or 4 per cent, or whatever it was. That does not cut any figure.

General HARRIES. Mr. Chairman, if the statement goes into the record and is distributed to Members of the House that to the knowledge of one gentleman who spoke before this committee millions of water were put in this—that he knew of millions of water—and nothing more of it is given, it will look as though it had gone uncontradicted. It is a rather serious proposition, and it might govern the action of Members on the floor. There ought to be a definite statement. If I say a man committed murder, I must say it was done on such and such a day, at such a time, and that he did it in such and such a fashion.

Mr. CAMPBELL. I agree with the General that such a statement as that ought not to be made here, and that under the circumstances under which this statement has been made the committee would not be warranted in going on the floor of the House and saying it has been stated, without qualification or without contradiction.

Mr. DANIEL. Any man of average intelligence, if he investigates the reports, will see it for himself.

Mr. TAYLOR. Any man of average courage would not state things of that sort as facts unless he knew them to be absolutely true.

Mr. DANIEL. What I want to call attention to is this: Are the streets of Washington graded and improved and the railway lines allowed to run their cars on them for the operation of a street railway, or are they given this franchise merely to issue stock on?

Mr. CAMPBELL. That is not the question. The question is, In what way are we to receive or support your statement here as to watered stock?

Mr. POU. We are not bound to support it.

Mr. CAMPBELL. Then we should ignore it.

Mr. DANIEL. Anybody who will read that report that I made will see that the statement is true.

Mr. POU. I do not see that it is an important matter. Each Member can have his own view of it.

Thereupon, at 1.30 o'clock p. m., the committee adjourned.

APPENDIX.

[H. R. 124, Fifty-ninth Congress, first session.]

A BILL To regulate the operation of street railways in the District of Columbia, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That after six months from the approval of this act it shall be unlawful for any street railway company owning or operating any street railway in the District of Columbia to place or operate upon any portion of its line within the limits of the city of Washington any car of greater weight than ten tons: *Provided*, That cars weighing more than ten tons may be operated over and upon such streets and avenues in the city of Washington as the Commissioners of the District of Columbia may approve, but only upon special permits issued therefor, which permits shall prescribe the weight of such cars to be so operated, the rate of speed at which they shall operate, and any other conditions necessary for the protection of life, property, and the public comfort which said Commissioners may incorporate therein, and to contain a special provision that for any violation of the terms of the permit the same shall be revoked. And hereafter no cars constructed, purchased, or leased after the approval of this act shall be run or operated on any street railway line or lines within the District of Columbia without having first been approved by the Commissioners of said District.

SEC. 2. That each and every street railway company now operating within the limits of the District of Columbia shall, within thirty days after the passage of this act, and each and every such company which may hereafter operate therein shall, before commencing such operation, and all such companies shall, on the first day of January of each year, and at such other times as the said Commissioners may direct, submit to the Commissioners of the District of Columbia a time schedule of the running of its cars, and of the routes and destinations thereof, and of all transfer arrangements relating thereto, on each and every line or branch thereof operated by said railway company within the District of Columbia, and the Commissioners of the District of Columbia shall approve such schedule, routes, and destinations and transfer arrangements, said Commissioners having, however, full power first to make such alterations or changes therein as they may consider necessary for the interests of the public, and it shall be unlawful for any of the said railway companies to run or operate its cars upon any other schedule or route or to any other destination or upon any other transfer arrangement than that approved by said Commissioners.

SEC. 3. That each car run upon each of the street railways of the District of Columbia shall at all times be kept in good repair and in a clean and proper condition; all fenders thereon shall at all times be in good working condition, and no car shall be used which, by reason of a flattened wheel, broken flange, loosened parts, or any other cause, makes, or is liable to make, cause, or produce unnecessary noise or annoyance upon the public street. That whenever, in the judgment of said Commissioners, the public interests require it the said street railway companies shall erect or provide properly lighted and heated waiting rooms at all transfer points, the cost and maintenance thereof to be borne by the companies whose lines intersect at such points, and also at such terminal and way stations as the said Commissioners may direct. All questions relating to the cost and maintenance thereof, in the event of the railway companies affected being unable to agree between themselves, shall, on the petition of any railway company affected, be determined by the supreme court of said District: *And provided further*, That emergency brakes shall be placed upon each

car operated on any line of street railway in the District of Columbia any portion of the road of which for more than fifteen hundred feet of its length has a grade greater than five per centum.

SEC. 4. That so much of section five of the act of February twenty-sixth, eighteen hundred and ninety-five (Twenty-eighth Statutes, page six hundred and eighty-two), as authorized the Brightwood Railway Company and the Georgetown and Tenallytown Railroad Company to sell four coupon tickets for twenty-five cents for a continuous trip over either of said roads, respectively, and the Metropolitan Railroad be, and the same is hereby, repealed: *Provided*, That nothing in this section shall be construed to repeal section three of the act of July seventh, eighteen hundred and ninety-eight, entitled "An act to require the Brightwood Railway Company to abandon its overhead trolley on Kenyon street, between Seventh and Fourteenth streets," the provision of said section three of said act of July seventh, eighteen hundred and ninety-eight, being hereby made a part of this act, and such portions of section five of the act of February twenty-sixth, eighteen hundred and ninety-five, as are retained in said section three of the act of July seventh, eighteen hundred and ninety-eight, for the purpose of providing penalties for violations of said section three are hereby specifically retained and made a part hereof: *Provided further*, That it shall be unlawful to charge more than the present legal fare for one car ride, namely, one cash fare of five cents, or at the rate of six tickets for twenty-five cents, for a single trip in either direction within the District of Columbia between any point on the Brightwood Railway or on the Georgetown and Tenallytown Railroad to any point on the lines of the Washington Railway and Electric Company.

SEC. 5. That every suburban street railroad in the District of Columbia whose tracks now intersect or connect with, or hereafter may be made to intersect or connect with, tracks of any of the urban street railroads in said District, is hereby authorized, directed, and required, subject to the limitations contained in section one of this act, to run cars on and over the tracks of said urban street railroads into the business sections of the city of Washington. And each urban street railroad is hereby required to permit said suburban street railroads to run cars over its several lines as aforesaid in accordance with the provisions of section five of an act to authorize the Metropolitan Railroad Company to change its motive power for the propulsion of the cars of said company, approved August second, eighteen hundred and ninety-four. The compensation therefor and all matters relating thereto not hereinbefore provided for, in the event of said railroad companies being unable to agree between themselves, shall from time to time, on petition of any railroad company, be determined by the supreme court of said District: *Provided*, That this section shall apply in all cases whether the ownership, control, or charge of any such suburban railroad is vested in the same company owning, controlling, or in charge of the intersecting or connecting urban railroad, or in a different company.

SEC. 6. That for any violation of any of the provisions or requirements of this act, or of any regulation made by the Commissioners of the District of Columbia under the authority of this act, the railway company so violating, and the president, the vice-president, and each of the directors of the company owning, controlling, or in charge of said railway shall be jointly and severally liable to a fine of not less than twenty dollars nor more than one hundred dollars for each and every such violation, to be recovered in the police court of the District of Columbia as other fines and penalties are now recovered by law; and it shall be the duty of said Commissioners to institute proceedings for the recovery thereof: *Provided*, That each and every day wherein any of the provisions or requirements of this act, or of any regulation made by the Commissioners of the District of Columbia under the authority of this act, shall be violated, shall constitute a separate offense.

SEC. 7. That prosecutions for violations of the provisions of this act or any regulations made thereunder, shall be on information filed in the police court by the corporation counsel in the name of the District of Columbia; and said corporation counsel shall file such informations upon the presentation to him of sworn information of two residents of said District that the law or regulation has been violated.

SEC. 8. That all acts or parts of acts inconsistent with the provisions hereof are hereby repealed.

Letter of Commissioners transmitting draft of H. R. 124.

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Washington, November 22, 1905.

Hon. J. W. BABCOCK,

Chairman of Committee on the District of Columbia,

House of Representatives.

DEAR SIR: The Commissioners of the District of Columbia have the honor to forward herewith a bill which was introduced at the last session of Congress, entitled "A bill to regulate the operation of street railways in the District of Columbia, and for other purposes," but which failed of passage. They recommend that the bill be enacted at the present session of Congress.

The charters of the street railway companies operating in the District of Columbia are granted by Congress. Most of these charters provide for certain powers and duties to be exercised by the Commissioners of the District of Columbia, but in almost every instance where such powers are given and duties imposed no means of enforcement, by penalty or otherwise, is provided by the charter and there is no general law on the subject. This is particularly the case where the charters require the railway companies to submit time schedules to the Commissioners for approval, where cars are required to be run as often as the public convenience may require, where cars are required to be furnished of first-class construction and of suitable weight to the satisfaction of the Commissioners, and also where passenger houses are required to be furnished for the convenience of the public as the Commissioners may direct. As a consequence the Commissioners, to whom many complaints are made as to inadequate service and accommodations on the part of the street railways, are obliged to plead their inability to cause the same to be remedied. Such complaints are frequently made as to failure of street railway companies to provide satisfactory schedules to accommodate the traffic, to provide passenger houses to protect the traveling public, and regarding the mechanical equipment of the cars.

The bill which the Commissioners inclose has been before Congress for several years. It was prepared by the Commissioners and they believe that there is a public necessity for its passage. It provides for the regulation by the Commissioners of the weight of street cars; the schedules of running the cars and the routes and destinations thereof; provides that transfer arrangements shall be approved by said Commissioners; that the cars run on street railways shall be kept in a condition satisfactory to the Commissioners; that properly lighted and heated waiting rooms shall be provided by the railway companies at transfer points; that emergency brakes shall be required on the cars under certain conditions, and generally gives to the Commissioners authority to regulate the operation of street railways, provision being made, upon the failure of the railway companies to comply with the requirements of the bill or those made by the Commissioners, that the requirements shall be enforced by proper penalty. It makes the officers and directors of the street railway companies liable to such penalties, which is not the case in any prosecutions which are authorized at present under any police regulations.

The powers and duties provided for by the bill to be placed in the hands of the Commissioners of the District of Columbia are generally those exercised by street railway commissioners, street supervisors, and other such bodies in other cities. Under existing legislation the responsibility of the railways is only to the legislative authority which gave them charters, namely, Congress, and it can be well understood that no proper supervision can be had over these companies under such arrangement. The Commissioners believe that some such legislation is necessary, and they therefore request favorable action on the bill.

Very respectfully,

HENRY B. F. MACFARLAND,

*President of the Board of Commissioners of
the District of Columbia.*

[H. R. 7035, Fifty-ninth Congress, first session.]

A BILL, For universal transfers over the street railway lines in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That thirty days after the passage of this act the street railway lines in the District of Columbia shall issue trans-

fers interchangeable from the lines of one company to those of another, the companies to have the right to stipulate that the transfer shall be good only for a trip in continuation of the trip on the line for which the transfer is issued, so that a passenger will not be enabled to use this interchange of transfers to effect a trip from one point to another and return on one fare: *Provided*, That in the adjustment of their accounts resulting from this interchange of transfers the railway companies shall prorate the amounts due on a mileage basis according to the length of the railway lines which are involved in each particular transfer, it being assumed that the transfer is used from the point of transfer to the end of the line, and that the line issuing such transfer shall be entitled to a prorate on mileage from its initial point to the point of transfer, and the other line from the point of transfer to the end of its line: *And provided further*, That the railway lines shall not be required to issue a transfer on a transfer.

Report of Commissioners on H. R. 7035.

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Washington, December 29, 1905.

Hon. J. W. BABCOCK,

Chairman, Committee on the District of Columbia.

SIR: The Commissioners of the District of Columbia have the honor to submit the following upon H. R. 7035, Fifty-ninth Congress, first session, "For universal transfers over the street railway lines in the District of Columbia," which you referred to them for examination and report:

A similar bill (H. R. 17113, 58th Cong., 3d sess.) was reported upon by the Commissioners on January 20, 1905. In this bill the Commissioners invited attention to the fact that they had recommended to Congress a bill to regulate the operation of street railways, section 2 of which placed the matter of regulating transfers between street railway companies in the hands of the Commissioners, who were given authority to make regulations in the matter after proper hearing. They also invited attention to the fact that the measure was opposed by the street railway companies.

The bill to regulate the operation of street railways, above referred to, has been reintroduced in the present Congress (H. R. 124), and the Commissioners believe that if this bill is passed the matter can be handled more equitably both to the railway companies and the public than by the passage of the bill requiring universal transfers.

Very respectfully,

HENRY B. F. MACFARLAND,

*President of the Board of Commissioners
of the District of Columbia.*

[H. R. 22132, Fifty-ninth Congress, second session.]

A BILL For universal transfers over the street-railway lines in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That thirty days after the passage of this act the street-railway lines in the District of Columbia shall issue free transfers at all junction points interchangeable from the lines of one company to those of another.

Report of Commissioners on H. R. 22132.

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Washington, January 16, 1907.

Hon. J. W. BABCOCK,

Chairman Committee on the District of Columbia,

House of Representatives.

DEAR SIR: The Commissioners of the District of Columbia, to whom was referred bill H. R. 22132, being a bill "For universal transfers over the street-railway lines in the District of Columbia," have the honor to submit the following report thereon:

In view of the importance of the measure the Commissioners gave a public hearing, which hearing was attended by representatives of the two street railway corporations operating in the District of Columbia, by the officers of the

board of trade and Business Men's Association, and by the presidents or other representatives of various citizens' associations. The hearing was quite exhaustive and resulted in a thorough discussion of the points involved.

The hearing developed opposition on the part of the railroad companies to the proposed legislation on the ground that the giving of universal transfers would result, especially during the evenings in the summer time, in large numbers of persons enjoying the unlimited use of the railroads by the payment of one fare. It was also argued by the representatives of the railroad companies that the giving of universal transfers would result in serious financial loss. It was also claimed—and reports were cited to show that the contention was correct—that the generous system of transfers already in vogue in the city, although not between competing lines, resulted in reducing the average fare per passenger carried to about 3½ cents. On the other hand, the representatives of the citizens' associations contended that the privilege of universal transfers would not be abused, and that the public was entitled to this consideration. The Commissioners have taken occasion to examine into conditions elsewhere and find that in all cities where the traction lines are under the control of one corporation, as in Minneapolis, Milwaukee, and Pittsburg, the universal transfer system is in vogue, and even in some other cities—as, for instance, Indianapolis—transfers are given between competing lines. The Commissioners appreciate the practical difficulties suggested by the railroad companies, but believe that a system of reciprocal transfers should be provided, and that if the proposed law should be enacted the railroad companies could devise some means to put it into operation without serious inconvenience.

The bill now under discussion might be amended so that no person shall be entitled to a transfer after having tendered a transfer as fare except where the destination of the passenger is to some suburban point on the lines of the Georgetown and Tenleytown roads, the Brightwood Railway Company, the City and Suburban Railway Company, the Anacostia and Potomac River Railroad Company, and the Chevy Chase extension of the Capital Traction Company. One suggestion made during the hearing was that all transfers be abolished and that a flat rate of 3 cents be charged each passenger. This proposition has also been commended to the Commissioners in several communications.

The Commissioners invite attention to the fact that the various street railroad companies of the District of Columbia submit annual reports to Congress, giving their operations in detail, which information is easily accessible to the committee. These reports show the capital stock, funded and floating debt, cost of operation, dividends paid, and other details, all of which deserve consideration in connection with the proposed legislation.

The Commissioners further desire to invite the attention of the committee to the bill previously submitted to them relating to the control of street railroads in the District of Columbia and beg to suggest the advisability of favorable action thereon. This bill gives authority to the Commissioners to regulate schedules so that the public can receive the maximum of accommodation, and also to adjust a scheme of transfers between competing lines.

Very respectfully,

HENRY B. F. MACFARLAND,

President of the Board of Commissioners of the District of Columbia.

[H. R. 23018, Fifty-ninth Congress, second session.]

A BILL Fixing the price of gas in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the date of the passage of this act all gas companies operating within the District of Columbia and supplying illuminating gas to the inhabitants thereof, shall furnish such gas to said inhabitants for the price of seventy-five cents per thousand feet, such gas to be of the standard and quality required at the present time: *Provided*, That nothing herein shall affect any contract made by any such company for a lower price than that above prescribed.

SEC. 2. That all laws and parts of laws inconsistent herewith are hereby repealed.

Report of Commissioners on H. R. 23018.

COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, January 16, 1907.

HON. J. W. BABCOCK,

Chairman of Committee on District of Columbia, House of Representatives.

DEAR SIR: The Commissioners of the District of Columbia have the honor to make the following report upon H. R. bill 23018, of the present session, entitled "A bill fixing the price of gas in the District of Columbia," which was referred to them at your instance on the 4th instant for their examination and report.

The bill was received by the Commissioners on January 7, and on January 10 they held a public hearing upon it, after notifying the Board of Trade, the Business Men's Association, the Jobbers' and Shippers' Association, the various citizens' associations, the Washington Gaslight Company, and the Georgetown Gaslight Company that such a hearing would be held on that day. The organizations of citizens were generally represented on that occasion, and the general expression was in favor of a reduction in the price of gas to 75 cents, provided that price would afford a fair profit to the gaslight companies. Most of those who spoke stated that until the elements of cost in the manufacture and distribution of gas in the District of Columbia were ascertained authoritatively and accurately, they would not be ready to express an opinion.

The president of the Georgetown Gaslight Company, who was present, stated in response to a direct question from the Commissioners that he had nothing to say. It may be stated, however, that the Georgetown Gaslight Company has notified its customers that there will be a reduction in the price of its gas from February 1 next of 25 cents per thousand feet, or from \$1.25 to \$1 net per thousand feet.

The representatives of the Washington Gaslight Company at the hearing made certain general statements as to the receipts and expenditures, the stock and indebtedness, and the cost of making gas on the part of their company, and promised a detailed statement, which the Commissioners received on yesterday, and a copy of which is herewith transmitted.

The Commissioners, after due consideration, believe that the price of gas in the District of Columbia should be decreased to the lowest possible point consistent with a fair profit to the gaslight companies. They are in favor of making that price 75 cents, if that will afford a fair return. This they understand to be the position generally taken by the community, as expressed at the public hearing which they gave, by correspondents, and through the press.

But the Commissioners are not able to advise your committee as to what is a fair price for gas in the District of Columbia, since neither they nor anyone in the service of the District of Columbia has technical knowledge on the subject, nor have the Commissioners authority or means for making an investigation by disinterested experts so as to inform themselves as to the elements of cost in an entirely satisfactory manner. Such inquiries have been made heretofore by committees of Congress.

The Commissioners strongly recommend that Congress require the companies manufacturing gas in the District of Columbia to make annually a sworn detailed report of their receipts and expenditures, and also the specific elements of cost in the manufacture and distribution of gas, and that it take such other steps as may be necessary to enable Congress to determine what is the fair price for gas in the District of Columbia.

Very respectfully,

HENRY B. F. MACFARLAND,
*President of the Board of Commissioners
 of the District of Columbia.*

STREET RAILWAYS AND GAS IN DISTRICT OF COLUMBIA. 177

Statement of the Washington Gaslight Company of receipts and disbursements, showing the actual cash cost of making and selling gas per thousand cubic feet, exclusive of any charge for depreciation of plant, for the year ending December 31, 1906.

RECEIPTS.

From sales of gas		\$1, 762, 090
By products:		
Coke	\$30, 000	
Ammonia	4, 550	
Tar	13, 438	
Lime	600	
		48, 588
		1, 810, 678

OPERATING EXPENSES.

Total cost of 56,297 tons of coal used during the year 1906	\$205, 000	
Total cost of oil used (8,946,000 gallons)	347, 300	
Meters	13, 850	
		566, 150
Repairs	22, 000	
Maintenance of works	36, 000	
Expense of works, miscellaneous supplies	6, 500	
Expense of office, stationery, etc	9, 399	
Street lamps	37, 000	
		110, 899
General expense:		
Wages	283, 000	
Salaries—		
General officers	40, 000	
Clerks	50, 783	
Legal expenses	22, 166	
Advertising	5, 095	
Indemnity and fire insurance	6, 197	
		407, 241
		1, 084, 290
Taxes:		
Cash to collector	103, 818	
Inspector of gas fittings	947	
Inspector of gas and meters	4, 261	
Water rent	2, 589	
		111, 615
		1, 195, 905
Dividends and interest		445, 084
		1, 641, 589
Construction and extension of street mains	41, 065	
Real estate purchased	10, 100	
		51, 765
		1, 693, 354
Amount estimated by Mr. McIlhenny to be necessary to complete renewal of buildings and machinery destroyed by fire at the east station works	65, 000	
Balance	52, 324	
		117, 324
		1, 810, 678
Funded debt (rate per annum on funded debt, 4 and 6 per cent, averaging 5.625 per cent)		3, 200, 000
Amount of capital stock		2, 600, 000
Total operating expenses, exclusive of dividends, interest, and fixed charges		1, 195, 905

178 STREET RAILWAYS AND GAS IN DISTRICT OF COLUMBIA.

Actual cash cost of making and distributing 1,762,090 cubic feet of gas sold, the same being exclusive of the charge of \$51,765 for construction and extension of mains and purchase of real estate, 67.86.

We, William B. Orme, secretary, and James S. McIlhenny, engineer, of the Washington Gas Light Company, do hereby swear that the foregoing annexed statement is just and true to the best of our knowledge and belief.

WILLIAM B. ORME, *Secretary.*

JAMES S. MCILHENNY, *Engineer.*

Subscribed and sworn to before me this 15th day of January, 1907.

[SEAL.]

WILLIAM P. YOUNG,

Notary Public, 419 Tenth street NW.

[H. R. 23023, Fifty-ninth Congress, second session.]

A BILL Regulating the manner of giving transfers on the street-car railways in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That on and after the date of the passage of this act every street railroad company operating within the limits of the District of Columbia shall give free continuous transfers to passengers thereon, which transfers shall be good at every point of intersection on all intersecting lines of the same or other roads.

SEC. 2. That on and after the passage of this act all street railroads operating within the limits of the District of Columbia shall sell to its passengers twenty-five tickets or fares for one dollar, such tickets to be good for a continuous ride to any part of the said District and to entitle passengers to free transfers, as provided in section one hereof.

SEC. 3. That on and after the date of the passage of this act all street railroads operating within the limits of the District of Columbia shall run cars at least every five minutes upon every branch of such roads within the District limits between the hours of six o'clock antemeridian and one o'clock antemeridian, and at least every thirty minutes between the hours of one o'clock antemeridian and six o'clock antemeridian: *Provided*, That nothing herein shall prevent said roads from running cars more frequently than as above prescribed.

SEC. 4. That every officer or agent of any street railway company, and every street railway company, for every violation of any of the provisions of the foregoing sections shall be punished by a fine of not less than ten dollars nor more than two hundred dollars by the police court of the District of Columbia on prosecution by information brought by the corporation counsel or any of his assistants.

SEC. 5. That all street railway companies operating within the District of Columbia shall pay to the District of Columbia, in lieu of personal taxes upon personal property, including cars and motive power, each year twenty per centum of its gross earnings, which amount shall be payable to the collector of taxes of said District at the times and in the manner that other taxes are now due and payable, and subject to the same penalty on arrears; and the franchise and the property of each of said companies, both real and personal, to a sufficient amount, may be seized and sold in satisfaction of the amount respectively due by them, as now provided by law for the sale of other property for taxes; and said per centum of gross earnings shall be in lieu of all other assessments of personal taxes upon such companies' property, used solely and exclusively in the operation and management of said railways: *Provided*, That the real estate of every such company shall be taxed as other real estate in the District: *And provided*, That tracks and any elevated railway structures shall not be taxed as real estate.

SEC. 6. That all existing laws or parts of laws inconsistent with the provisions of this act are hereby repealed to the extent to which they are inconsistent, but to no further or other extent.

Report of Commissioners on H. R. 23023.

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Washington, January 16, 1907.

Hon. J. W. BABCOCK,

*Chairman Committee on the District of Columbia,
House of Representatives.*

DEAR SIR: The Commissioners of the District of Columbia, to whom was referred House bill 23023, being a bill "regulating the manner of giving transfers on the street-car railways in the District of Columbia," have the honor to submit the following report thereon:

The bill proposes, in brief, to establish a system of universal transfers in the District of Columbia, to regulate the running of cars, and to impose an additional tax upon the street-railway companies. In view of the importance of the measure the Commissioners gave a public hearing, which hearing was attended by representatives of the two street-railway corporations operating in the District of Columbia, by the officers of the Board of Trade and Business Men's Association, and by the presidents or other representatives of various citizens' associations. The hearing was quite exhaustive and resulted in a thorough discussion of the points involved.

In regard to the first section of the bill, which provides—

"That on and after the date of the passage of this act every street-railroad company operating within the limits of the District of Columbia shall give free continuous transfers to passengers thereon, which transfers shall be good at every point of intersection on all intersecting lines of the same or other roads;" the hearing developed opposition on the part of the railroad companies to the proposed legislation on the ground that the giving of universal transfers would result, especially during the evenings in the summer time, in large numbers of persons enjoying the unlimited use of the railroads by the payment of one fare. It was also argued by the representatives of the railroad companies that the giving of universal transfers would result in serious financial loss. It was also claimed, and reports were cited to show that the contention was correct, that the generous system of transfers already in vogue in the city, although not between competing lines, resulted in reducing the average fare per passenger carried to about 3½ cents. On the other hand, the representatives of the citizens' associations contended that the privilege of universal transfers would not be abused and that the public was entitled to this consideration.

The Commissioners have taken occasion to examine into conditions elsewhere and find that in all cities where the traction lines are under the control of one corporation, as in Minneapolis, Milwaukee, and Pittsburg, the universal transfer system is in vogue; and even in some other cities, as for instance, Indianapolis, transfers are given between competing lines. The Commissioners appreciate the practical difficulties suggested by the railroad companies, but believe that a system of reciprocal transfers should be provided, and that if the proposed law should be enacted the railroad companies could devise some means to put it into operation without serious inconvenience. The bill now under discussion might be amended so that no person shall be entitled to obtain a transfer after having tendered a transfer as fare, except where the destination of the passenger is to some suburban point on the lines of the Georgetown and Tenleytown roads, the Brightwood Railroad Company, the City and Suburban Railroad Company, the Anacostia and Potomac River Railroad Company, and the Chevy Chase extension of the Capital Traction Company. One suggestion made during the hearing was that all transfers be abolished and that a flat rate of 3 cents be charged each passenger. This proposition has also been commended to the Commissioners in several communications.

Regarding the second section of the bill, which provides for the selling of 25 tickets or fares for \$1, the Commissioners beg leave to state that the present practice is to sell 6 tickets for 25 cents, or 24 tickets for \$1. They submit that this system is generally satisfactory and do not advocate its change.

As to the third section of the bill, which provides "that on and after the date of the passage of this act all street railroads operating within the limits of the District of Columbia shall run cars at least every five minutes upon every branch of such roads within the District limits between the hours of six o'clock antemeridian and one o'clock antemeridian, and at least every thirty minutes between the hours of one o'clock antemeridian and six o'clock antemeridian: *Provided*, That nothing herein shall prevent said roads from running

cars more frequently than as above prescribed," the Commissioners recommend that the words "five minutes," in line 3, page 2 of the bill, be amended so as to read every "fifteen minutes;" and that the words "and at least every thirty minutes between the hours of one o'clock antemeridian and six o'clock antemeridian" be amended so as to read "every sixty minutes;" inasmuch as suburban traffic does not warrant the running of cars at more frequent intervals between 1 o'clock and 6 o'clock a. m.

Section 5, which provides for the increase of the taxation of street railroad companies from 4 per cent to 20 per cent of its gross earnings, should, in the opinion of the Commissioners, be amended so as to provide that said tax shall be 6 per cent of the gross earnings. The Commissioners are of the opinion that the franchise enjoyed by the street railroad companies is one of great value, but 20 per cent seems to be an inequitable amount.

The Commissioners further desire to invite the attention of the committee railroad companies of the District of Columbia submit annual reports to Congress giving their operations in detail, which information is easily accessible to the committee. These reports show the capital stock, funded and floating debt, cost of operation, dividends paid, and other details, all of which deserve consideration in connection with the proposed legislation.

The Commissioners further desire to invite the attention of the committee to the bill previously submitted to them relating to the control of street railroads in the District of Columbia and beg to suggest the advisability of favorable action thereon. This bill gives authority to the Commissioners to regulate schedules so that the public can receive the maximum of accommodation and also to adjust a scheme of transfers between competing lines.

Very respectfully,

HENRY B. F. MACFARLAND,
*President of the Board of Commissioners
of the District of Columbia.*

RELATING TO STREET RAILWAY TRANSFERS, FARES, CONTROL, ETC.

Report of Business Men's Association, of Washington, D. C.

THE BOARD OF DIRECTORS OF THE BUSINESS MEN'S ASSOCIATION,
OF WASHINGTON, D. C.

GENTLEMEN: By your resolution adopted January 17, 1907, the undersigned, Louis P. Shoemaker, Chapin Brown, Albert Schulteis, Fred G. Coldren, and Wilton J. Lambert, were appointed a special committee to consider the resolution of the Brightwood Citizens' Association, a copy of which is attached hereto, upon the subject of the Brightwood railway service, and we beg leave to report as follows:

Several members of your committee are personally cognizant of the situation which exists, and has for a long time existed with reference to the management of this road, and at a recent meeting of your committee, the following report was unanimously adopted.

It is a notorious fact that the service afforded by the Washington Traction Company to the Brightwood, Petworth, and Takoma section has been for a number of years the cause of constant complaint. This complaint and this dissatisfaction does not emanate from an individual, nor from a small number of individuals. It is the complaint and the dissatisfaction which exists and has emanated from the people of that section at large.

The unanimously adopted resolutions of public meetings of the Brightwood Park, Tacoma, and Petworth Citizens' Association, together with the general public sentiment which undoubtedly exists and is generally known, give evidence of dissatisfaction on the part of the people and indicate very thoroughly the insufficiency which has long existed, and does now exist, with reference to the inadequacy and insufficiency of railway service afforded by the Washington Traction Company to the people of that section.

Complaint has not, during all these years, been the same. Some of the disadvantages of which the people have heretofore complained have been corrected, but the service has always been, as it is now, insufficient to accommodate the traveling public. At the present time cars are overcrowded, power is frequently insufficient, but the greatest and most objectionable situation exists at the present time because of the absence of through service, to which the

public feel entitled. The transfer system in vogue above boundary from the Ninth street line to the Brightwood line is dangerous to life, limb, and health. It is a hardship to be in the inclemency of the weather and to be obliged to stand around unprotected in the cold, rain, snow, and mud, and this condition can not fail to impress every one as being disagreeable in the extreme. Recently, for more than a month, the east side of Brightwood avenue in the vicinity of the place where the people have to leave the Ninth street cars in order to take the Brightwood cars has been torn up and the pavement removed. This pavement has been replaced, but the patrons of the road have to step into surface mud and dirt, which always exists in wet weather on a roadway paved with rough stone blocks. They then find themselves crowded, as some of the people have truthfully said, like cattle into an overcrowded car, which always receives the passengers from a number of cars which come up to connect with the Brightwood line. Through service would correct the density of passengers at this particular point, while the Ninth street cars would carry them along in comfortable numbers without exposure of transfer, and this crowded condition would then be obviated.

We see no reason why this company should refuse to carry its patrons on to the District line and Takoma without change, when the same company is conducting a through service to Anacostia, beyond the Eastern Branch, to Benning, and to Berwyn, and even as far as Laurel, half way to Baltimore, from the center of the city. We are aware of the fact also that through-car service is afforded by the electric railway companies of other cities, and that from the center of Boston and other large cities you can go for miles out without having to change cars. Particular attention might be directed to the electric-car service of Detroit, Mich., a city of about the population of Washington, where one can take an electric car from the very center of the city and go out to the town of Flint, 68 miles, without change.

The attention of Mr. Harries, at a meeting of the Petworth Citizens' Association, was called to this fact, after a statement had been made by him to the effect that if through-car service were afforded to the people of Brightwood the cars would become congested within the limits of the city and that traffic would be interfered with. The only argument made by him at the time, when his attention was called to the situation in Detroit, was that the law in Detroit permitted the cars to go at a very rapid speed. Of course we fail to understand the force of any such statement as a reason why equivalent service could not be provided for the people of Washington, and we recognize the sophistry of his position when he argues at one moment that the cars can not run even slow in Washington, and at the next moment he contends that the people of Detroit enjoy such admirable electric cars because they are allowed to run rapidly.

Your committee has carefully considered the letter of Mr. Harries, which is attached to this report, and we beg that it be considered in connection herewith. It is undoubtedly quite proper that we should allude thereto. First, Mr. Harries contends he is in consultation with many of the gentlemen who are interested in the matter and that he is endeavoring to reach an agreement which will be satisfactory to the majority for some time to come. We have heard this statement many times before, but we have not as yet, unfortunately for the railway company, in our opinion, and unfortunately, also, for the community as well, observed any change which will, as he says, be satisfactory to the majority of our people.

He contends he has operated the Brightwood line at great loss and that he is continuing to operate it at great loss, in spite of the theory of some gentlemen who have insisted that more cars would mean less deficit. Of course, your committee is not in the railroad business, but common sense indicates that it is not necessary to be so engaged or familiar with the sacred intricacies of its system of bookkeeping or to have a knowledge of its so-called public-spirited management to convince us of the fact that the more crowded cars the railroad company operates the more money it loses, under conditions, of course, which exist with reference to the Washington Traction Company's lines. It is true that additional number of cars have been recently provided, known as trippers, during what are designated as the busy hours of the morning and evening, and much relief has been thus afforded, but it is, nevertheless, true and observable every day that District-line trippers and Takoma trippers turn in from the terminus of the Ninth street line and leave a large number of people standing in the street waiting to go on to their homes after a day of labor in the city. We contend that these trippers should not turn in and thus inconvenience the

travelling public when a large number of people are waiting to take a car for the District line and Takoma, but that they should be required to return for the accommodation of the public.

It is impossible for us to understand why the Brightwood Railway Company is being operated at a loss, unless it be due to a defective management or to overcapitalization. This railroad company enjoys a public franchise, which it has obtained from the public without expense, and is allowed to use an important part of a great leading highway of the District of Columbia, known as Brightwood avenue, and the public is entitled to adequate car service. Therefore if it be true that the Washington Traction Company has operated the Brightwood road and is now operating it at a loss, it should in justice to the community, which is entitled to adequate car service, surrender its franchise. This would certainly relieve the railroad company from further loss, and it would put the public in a position whereby this franchise could be turned over to some other company, whom we believe would operate it and gratify the necessities of the people.

Mr. Harries contends further in his letter that the Business Men's Association should deprecate and decline to participate in a mass meeting, as suggested by the Brightwood Citizens' Association, because, in his opinion, mass meetings have shown conclusively that they are likely to defeat the ends desired by the community rather than do any material good. Are we to infer from this that Mr. Harries contends if the people give evidence of their desire for improved service through the medium of an orderly conducted mass meeting that this respectful effort on their part will prevent rather than give to the public such fair treatment as it ought to receive from the corporation of which he is vice-president?

Mr. Harries further states in his letter: "It is certain that publicity of inadequate service works loss and injury to all of the property involved in the dispute, because where there is condemnation of either transportation, sewerage, water supply, or police protection, there must be retarded growth; investors will surely look elsewhere."

He further says: "The interests of the residents and the railway company are mutual, and when this fact is recognized by both parties, as it is hoped to be in this instance, the result of a conference must be mutually profitable."

Your committee heartily indorse this statement. We recognize, and we are prepared to admit, that the continuous agitation of inadequate car service, which has been the cause of discussion for several years, has injured, and that it does now injure the community and the railway company as well. It has been so argued to the railroad company, and every effort has been made to induce the company to give satisfactory service, and thereby cause the building up of the District of Columbia more rapidly, and at the same time augment the revenues of the railroad company.

If Mr. Harries is really sincere in the statement made in his letter, we are of the opinion that through service, if given at once, would be of immediate benefit to that entire section, and also to the railroad company, and we feel he ought to so act in the interest of his company without further delay.

Respectfully submitted.

LOUIS P. SHOEMAKER, *Chairman.*

East Washington Citizens' Association.

Whereas it appears after report of the street railroad committee, upon due investigation and examination, that no protection or shelter for passengers is provided at the point of transfer junction between the Capital Traction and the East Washington Heights line at Pennsylvania Avenue bridge SE., and that the same is very requisite and necessary for the use of passengers, who are compelled to wait at the junction in question during inclement weather until the cars from the last-named road reach the circle for a return trip; and

Whereas it appears that the Commissioners of the District have declined to permit such waiting shed to be erected in public space, as they have been advised by the opinion of their counsel that they are without authority in the premises: Therefore, be it

Resolved, That it is the sense of the East Washington Citizens' Association that the Commissioners of the District of Columbia should be authorized by law, in their discretion, to grant permission for the erection of waiting sheds for such purposes.

2. That we earnestly request the management of each of said railway companies to unite and purchase land and erect a waiting shed at the point in question without further delay or awaiting action of Congress in the matter.

3. That a copy of the foregoing be sent to the president of each of said railway companies, to the District Commissioners, and to the chairmen of the District Committees of Congress.

(True copy: February 11, 1907.)

H. L. SPERRY,
Secretary of East Washington Citizens' Association.

Anacostia Citizens' Association.

JANUARY 18, 1907.

HON. J. W. BABCOCK, M. C.,
*Chairman Committee on the District of Columbia,
United States House of Representatives.*

DEAR SIR: At the last meeting of the Anacostia Citizens' Association the secretary was directed to inform you of their unanimous approval of the bill offered in the House by Representative M. B. Madden (H. R. 23023) regulating the giving of transfers in the District of Columbia, etc.

Very respectfully,

CHAS. R. BURR, *Secretary.*

Columbia Heights Citizens' Association.

WASHINGTON, D. C., December 14, 1905.

THE CHAIRMAN COMMITTEE ON THE DISTRICT OF COLUMBIA,
House of Representatives.

SIR: At its meeting of the 5th instant the Columbia Heights Citizens' Association adopted the following:

"Whereas the Commissioners have prepared and forwarded to Congress a bill similar to the one introduced by Senator Gallinger last session, providing for regulating the operation of street railways in the District of Columbia, said bill being introduced into the Senate yesterday by the Senator named: Be it

Resolved, That the Columbia Heights Citizens' Association heartily indorses the proposed bill and earnestly requests the passage thereof.

Resolved, further, That this action be communicated to the chairmen of the District Committees of Congress and to the Commissioners of the District of Columbia."

Yours, respectfully,

W. B. TODD, *Secretary.*

Petworth Citizens' Association.

MARCH 7, 1906.

DEAR SIR: The Petworth Citizens' Association desires to express its approval of the movement now before Congress to give the District Commissioners power to regulate the street-railway schedules.

We feel that the enactment of legislation to this end is going to meet with the hearty approval of all parts of the city, for the people of Washington have been a long-suffering people from the abuses perpetrated on them by the Washington Railway and Electric Company and its officers in their management of the roads under their control. This road has long enjoyed the very choicest franchises the people of the District could give, who in return have been compelled to put up with one of the worst managed, poorest equipped railway services to be found in almost any city in the Union. The passage of this bill seems to be a solution to the problem, to some extent, and we earnestly hope to see its passage.

Very respectfully,

D. J. PARTELLO, *Secretary-Treasurer.*

HON. JOSEPH W. BABCOCK,
House of Representatives.

Takoma Park Citizens' Association.

TAKOMA PARK, D. C., December 19, 1906.

HON. J. W. BABCOCK,
Chairman Committee on the District of Columbia,
House of Representatives.

DEAR SIR: At a recent meeting of the Takoma Park Citizens' Association a resolution presented by the committee on railroads was passed without a dissenting vote, approving and indorsing a bill known as H. R. 124, relative to the regulation of the operation of street railways in the District of Columbia, and earnestly urging its enactment into law.

Inasmuch as this bill was referred to your committee, I acquaint you with the facts above stated and urge your committee to favorably report the bill at an early date and press its passage before the House.

If hearings are given on the bill, our association will desire to be represented.

Will you please advise me as to the hearings, and oblige,

Yours, very truly,

J. H. CLARK,
Chairman Committee on Railroads.

East Washington Citizens' Association.

Whereas a bill, H. R. 2132, has been introduced providing for universal transfers over the street railways.

Resolved, therefore, by the East Washington Citizens' Association, That we do heartily indorse and approve of the passage of said bill as introduced by Mr. Wiley, of New Jersey, December 12, 1906.

2. That a copy hereof be sent by the secretary to Representative Wiley and to the chairmen of the District Committees in Congress.

A. L. SPERRY,
Secretary of East Washington Citizens' Association.

(A true copy: February 12, 1907.)

RELATING TO PRICE OF GAS.

North Washington Citizens' Association.

JANUARY 14, 1907.

SIR: I have the honor to transmit herewith a copy of a resolution passed by the North Washington Citizens' Association at its last regular meeting, held on the 7th instant:

"Resolved, That this association heartily approves of the Madden bill providing for the reduction of gas to 75 cents per thousand feet.

"Resolved, That a copy of these resolutions be transmitted to the honorable Commissioners of the District of Columbia and the chairmen of the Committees on the District of Columbia of the Senate and House of Representatives."

Very respectfully,

A. B. KEEFER, Secretary.

HON. J. W. BABCOCK,
Chairman Committee on the District of Columbia,
House of Representatives, Washington, D. C.

Petworth Citizens' Association.

JANUARY 11, 1907.

Whereas Representative Martin B. Madden, of Illinois, has introduced a bill, H. R. No. 23018, to reduce the price of gas in the District of Columbia to 75 cents per thousand feet; and

Whereas it is the sense of the Petworth Citizens' Association, based on the sworn testimony of gas experts, the price paid by consumers in England and other foreign countries and in a number of cities in this country, and the enormous dividend paid by the Washington Gaslight Company, that the price fixed by the Madden bill would be a long-delayed act of justice to the consumers of gas in this District; therefore

Resolved, That the association earnestly indorses said bill, respectfully requests the District Commissioners to return it to Congress without amendment so far as the proposed price is concerned, unless in their judgment a further reduction should be made.

Resolved, That this association hereby approves the amendment to be introduced by Senator La Follette to require the gas company to make annual reports to Congress.

Brotherhood of Painters and Decorators.

Resolved, That Local Union No. 368, Brotherhood of Painters and Decorators of America, in regular session assembled February 1, 1907, indorse the Madden bill now pending before the joint District Committee of Congress; be it further

Resolved, That Local Union No. 368 of Painters denounce the action taken by the Central Labor Union, of Washington, D. C., in regular session assembled January 28, 1907, for not indorsing the Madden bill.

Resolved, That a copy of this resolution be sent to the Hon. M. B. Madden, the District Committees of Congress, and the Central Labor Union, of Washington, D. C.

GEORGE W. SIETEN, *President*.
HUGH D. DIGNY, *Secretary*.



HOUSE COMMITTEE ON THE DISTRICT OF COLUMBIA.

REPORT OF HEARINGS OF FEBRUARY 14, 1907,

ON

H. R. 6016,

TO PROHIBIT THE MANUFACTURE AND
SALE OF INTOXICATING LIQUORS IN
THE DISTRICT OF COLUMBIA.

Printed for use of the Committee.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1907.

COMMITTEE ON THE DISTRICT OF COLUMBIA,
HOUSE OF REPRESENTATIVES.

JOSEPH W. BABCOCK, Wis., CHAIRMAN.

SAMUEL W. SMITH, MICH.
AMOS L. ALLEN, ME.
EDWARD DE V. MORRELL, PA.
CAMPBELL SLEMP, VA.
PHILIP P. CAMPBELL, KANS.
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MARCUS C. L. KLINE, PA.

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PROHIBITING THE MANUFACTURE AND SALE OF INTOXICATING LIQUORS IN THE DISTRICT OF COLUMBIA.

COMMITTEE ON THE DISTRICT OF COLUMBIA,
HOUSE OF REPRESENTATIVES,
Washington, D. C., Thursday, February 14, 1907.

The committee met this day at 10.30 o'clock a. m., Hon. Joseph W. Babcock in the chair.

The CHAIRMAN. The committee will come to order. Mr. Webber, we will hear from you.

STATEMENT OF HON. AMOS R. WEBBER, A REPRESENTATIVE FROM OHIO.

Mr. WEBBER. I will call upon the Rev. Carl G. Doney first, but I will say a word by way of introduction.

Mr. Chairman and gentlemen of the committee, these people have come here, citizens of the District of Columbia, representing something like 17 distinct organizations that are not only against the saloons, but are in favor of this measure which is lodged against them.

We can take but a very brief time, each one, but I call your attention now especially to the question whether or not from a money standpoint the saloons pay the taxpayers of the people of this District. I wrote a letter (which will be before your committee) to Mr. Macfarland, Commissioner of the District, and received an answer, and without stopping to read the answer, which I offer in evidence (because I have not the time), I will give you the substance of his statement. He says there are 522 drink places in the city and District of Columbia, or were a year ago last December, when I received the letter; that they paid \$416,776.60 per annum. Of course that amount changes somewhat as the years go by, but not much. It increases as the city grows larger. As against this sum of \$416,776.60 is the following: The jailor, or warden of the jail, writes me that it costs in round numbers \$50,000 a year to maintain the jail; the workhouse superintendent writes me that it costs \$95,336 to maintain the workhouse (see his letter), and he says 95 per cent of the inmates there are there through drink, and the jailor says 90 per cent of those who are in the jail are there by reason of drink.

The insane asylum has something like 1,300 inmates, according to the superintendent (see his letter), who are there by reason of drink, and to maintain them it costs something like \$275,000 a year. The District official reports show that to maintain your police court and criminal courts it costs about \$885,175 a year. That makes a grand total of \$1,295,511 for these expenses and institutions. Deduct from

that the amount that the liquor men pay in (\$416,776.60) and you have \$878,735 still against the taxpayers. To this should be added the annual drink bill of the District.

The saloon men of my State (and I find that true everywhere, although I have not consulted any saloon men here, but things are about alike the country over) say that the average gross income per day for each saloon is \$15. Now, assuming that they do not sell on Sundays, but keep strictly within the law, the drink bill of this city, and District, put at its lowest estimate, amounts to \$2,500,000 for 365 days—subtract from that sum and the added expenses of the institutions named \$416,776.60, and you still have for the taxpayers to meet \$3,378,735. I repeat, you will still have for the taxpayers to meet \$3,378,735, as the figures in round numbers still against the taxpayers.

Now, suppose you take that colossal sum and cut it right in two, you still have the enormous sum that the drink costs the citizens of this District yearly of \$1,689,367. These seventeen speakers represent here the churches and all the temperance organizations in this District, and in fact, they represent these organizations and churches throughout America, and they come here and ask you gentlemen to do your duty. We have come here to do our duty. When this door closes the responsibility is upon you. We ask you, in the light of all the evidence that shall be adduced here to-day by this cloud of witnesses (if you do not see fit to recommend the bill favorably), report it to the House without recommendation, and let the responsibility rest upon the Members from all over the country.

Mr. SIMS. (a member of the committee from Tennessee). Suppose the saloons paid ten millions of revenue and it cost the city nothing. Are we to value human lives from the standpoint of money? [Applause.]

Mr. WEBBER. No! I have not spoken of the question of the tears of widows or of the wrecked homes of this city. I have just spoken from the standpoint of a cold money proposition, and I ask you to look into these figures.

Mr. SIMS. You do not want us to consider it alone from that standpoint, I hope.

Mr. WEBBER. Certainly not. My time is so much taken up that I will have to go forward. No, sir; if it were not for the crimes and the wrecking of homes in this city to-day we would not be here asking this committee to do business. I do not come in here as your fellow-Member only. What do the people of the District say about it? They say, by tens of thousands, churches and the best citizenship, that they want this awful crime stopped in this community. [Applause.]

(Papers filed by Hon. Amos R. Webber.)

COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Washington, December 20, 1905.

DEAR SIR: In response to your inquiry I have the honor to state that the number of licenses issued in Washington City to sell intoxicants is as follows: Barrooms, 449; hotels, 52; clubs, 17; total, 518.

The number of licenses issued outside of the city of Washington in the District of Columbia is 4.

The licenses cost \$800, and the income from this source last year was \$416,776.60. All this under the acts of Congress governing the matter.

Sincerely, yours,

HENRY B. F. MACFARLAND.

HON. A. R. WEBBER,
House of Representatives.

OFFICE OF THE WASHINGTON ASYLUM,
Washington, D. C., December 20, 1905.

A. R. WEBBER, *Member of Congress.*

DEAR SIR: Replying to your request of yesterday I have the honor to report that the present population of the Washington Asylum Workhouse is 348. Of these 285 are males and 63 are females. The number who reach here directly or indirectly through intoxicating drink are fully 95 per cent, and the number of those who are sent here directly because of the drink habit is quite large. Many of them are charged with other offenses on the commitments, but in nearly all the cases drink is the concomitant of the various misdemeanors charged.

The cost per capita is \$92.44 per annum as to the prisoners. The cost of maintaining the entire institution for the last fiscal year (including workhouse, hospital, and almshouse) was: For salaries, \$30,336, and for maintenance, \$65,000.

Very respectfully,

L. F. ZINKHAN, *Superintendent.*

GOVERNMENT HOSPITAL FOR THE INSANE,
Washington, D. C., December 20, 1905.

Hon. A. R. WEBBER, M. C.,
House of Representatives, Washington, D. C.

MY DEAR SIR: I have the honor to acknowledge receipt of your inquiry of the 19th instant relative to the admissions to this hospital from the District of Columbia, and I beg to reply that as much of the data you desire is not recorded separately it can not be furnished in so short a time, especially that of the inebriate class. Thinking possibly an approximate estimate of such as can be given readily would be of service to you I furnish the following: Daily average from the District of Columbia to June 30, 1905, 1,250; number under treatment at present date, 1,350; per capita cost of maintenance for the year, \$220.

In the event that you desire a more definite estimate, if you will kindly inform me of the fact I shall be glad to furnish it to you at the earliest possible date. Trusting that the foregoing will be of service to you. I beg to remain,

Very respectfully,

WM. A. WHITE, *Superintendent.*

UNITED STATES JAIL,
Washington, D. C., December 13, 1905.

Hon. A. R. WEBBER, M. C.,
No. 1008 Thirteenth street NW., Washington, D. C.

MY DEAR SIR: Complying with your request of December 1 relative to the number of inmates in the United States jail, the number of commitments annually, what number are committed on account of the drink habit, the cost of maintaining the jail, the amount of appropriation necessary to make needed improvements, etc., I respectfully submit the following:

At the present time there are 417 prisoners in the jail. The number of persons committed during the year ending October 31, 1905, was 3,245. The average daily number for that year was 456. The appropriation for the maintenance of the jail for the current fiscal year ending June 30, 1906, including officers' salaries and all expenses, is \$50,000, and has grown from \$43,000 four years ago to the present amount on account of a continual increase of commitments to the jail.

The number of prisoners committed here directly on account of the drink habit can not so easily be determined, because prosecutions for drunkenness alone will send prisoners to the workhouse instead of to the jail, but in my judgment nine-tenths of all the prisoners committed to this jail during the year are either directly or indirectly committed because of the drink habit. For instance, in the case of assault and battery alone, 775 prisoners were sent to the jail; plain assault, 314 cases; assaulting with a dangerous weapon, 54 cases; assault with intent to kill, 6 cases; assault with intent to commit mayhem, 1 case, etc., and nearly every one of these cases was where the party had been in a state of intoxication. In the case of petit larceny there were 1,058 cases,

and it is well known that these cases are drunken brawlers, and that if it were not for their drinking they would not resort to stealing for a living. Hence, one occupying the position I do, seeing these prisoners when they come into the jail, conversing with them and getting their story of crime, their frank admissions that if it were not for strong drink they would never be in jail—this information leads me to say that nine-tenths of all the crime committed for which persons are incarcerated in the jail is directly or indirectly because of the use of strong drink.

My report shows at times more than 500 prisoners in the jail. Having only about 300 good cells, you will, therefore, see that more than 200 of these cells contain two prisoners. The cells are exceedingly small; they never were intended to have more than one prisoner in them. Hence, the crowded condition of the jail.

At least \$200,000 would be necessary to extend this jail to an adequate size, and to better the sanitary condition of the old part of the jail that now exists. However, if it were not for the additional room we need, a very few thousand dollars would place the present jail in good condition; and it is my opinion that, if it were impossible for this class of people to obtain strong drink, the present size of the jail would be more than sufficient for many a year to come. If intoxicating drinks could not be bought in this city, it is my opinion that several thousand of the worst element of society in the city would leave it, and not remain citizens of the District of Columbia; and the annual cost of this jail would be reduced to a fraction of the present expense.

Hoping that this may cover the items you requested in your note, I am,

Very respectfully, yours,

J. H. HARRIS, *Warden.*

Mr. WEBBER. These 522 drink places mentioned in Commissioner Macfarland's letter pay by way of license fees for the right to exist the sum of \$416,776; against this sum is the following:

To maintain jail per year (see jailer's letter)	\$50, 000
To maintain workhouse (see superintendent's letter of workhouse) ..	95, 336
To maintain insane asylum (see superintendent's letter)	275, 000
To maintain police court and criminal courts	885, 175
Total	1, 295, 511
Subtract	416, 778
Saloon tax lacks of paying above sum	878, 733
To this should be added the annual drink bill of the District. The saloon men admit that the average gross income per place is \$15 per day. Assume they do not sell Sundays at that rate the drink bill of this District amounts per annum to	2, 500, 000
Total amount paid out for drink and crime, the taxpayers have to meet	3, 378, 733

The jailer says that 90 per cent of those in jail got there through drink.

The superintendent of the workhouse says that 95 per cent of those under his charge get there through drink.

The superintendent of the insane asylum says that about half of his inmates get there through drink, and in his estimate there should be no reduction from the expense, he states, as he only gave the number that are there through drink.

The cost of the police force and criminal courts, we will say, would be reduced only one-half by the abolition of the saloons, still, the cost of permitting the liquor traffic to go on in the District amounts to a sum that staggers one. If the \$3,778,733 were divided by two, you still have left against the taxpayers \$1,689,347.

Mr. WEBBER. The next speaker, Mr. Chairman, is Rev. Mr. Doney.

STATEMENT OF REV. CARL G. DONEY, REPRESENTING THE ANTI-SALOON LEAGUE OF THE DISTRICT OF COLUMBIA.

Mr. DONEY. Gentlemen, I represent the Anti-Saloon League of the District of Columbia, a league of affiliated organizations numbering between 130 and 140 organizations, with our churches, Sunday schools, and fraternal organizations, and such as believe in the abolition of the saloon and in the promotion of moral welfare; and if Mr. Dinwiddie is not here to speak for the national organization, I am authorized to represent that as well—an organization that runs its way into almost every State and Territory of the Union; and I am authorized to say that the National Anti-Saloon League stands behind this movement, and you gentlemen will remember what that means. It means that the citizenship of the States is interested in the District of Columbia. We come here asking you, gentlemen, to report this bill favorably, if you will. If not, report the bill, and let us have it out upon the floor of the House and of the Senate.

There are reasons, I should judge, that should govern you in reporting the bill. First of all, I think you will be governed by the fact that you consider that such a law is necessary. Is it necessary from reasons economical? It is needful. From reasons of health it is needful. From reasons of efficiency it is needful. We know well that the saloon does not begin to pay its way. We know well that, however small the amount of alcohol taken into the system, it destroys our efficiency for work, and we know well, according to the judgment of life insurance actuaries, that a moderate drinker has a less chance of life than a teetotaler.

These are hard facts that every reasonable and intelligent citizen agrees to. There is another reason that should govern you in reporting a bill. Do the people want it? First, I believe the people of the District of Columbia want it. [Applause.] One hundred and thirty-odd organizations represented in the Anti-Saloon League, representing the best citizenship, the strength and the sinews of the District, say that they want this bill. The great meeting at the Belasco Theater last Sabbath afternoon was evidence that the people of the District of Columbia want this bill, and if you will consider the poverty, and the crime, and the mere money cost to the people, you will understand that we want this bill.

There is a final reason that should govern you in reporting this bill. Is it right? I believe that God still lives, and you believe that He lives, and it is worth our while to consider some of the implications that follow from the belief in God. If He is not dead, then He wants His children to do right. When Illinois proposed to hypothecate some of her debts, Douglas, sick as he was, had himself carried into the House, and he said, "Gentlemen, I want to introduce a resolution," and this was the resolution: "Resolved, that the State of Illinois do right." And I say to you, men of the committee, resolve that we do right. [Applause.]

Mr. WEBBER. Now we will hear from Reverend Doctor MacLeod, of the Presbyterian Church.

STATEMENT OF REV. DONALD C. MACLEOD, PASTOR OF THE FIRST PRESBYTERIAN CHURCH, DISTRICT OF COLUMBIA.

Mr. MACLEOD. Mr. Chairman and honorable gentlemen: I have the honor to appear before you first of all as the representative of the

First Presbyterian Church, an institution that has come down through all the history of this city, and that worshiped first of all in the beginning of its history in the tool house that was used in building the United States Capitol; and that in all the history of this capitol it has stood for everything that tended for the best life and the best interests of this city. I believe that in the truest sense I represent all the Presbyterians in the District of Columbia—numbering 10,000 of its best citizens—and the membership also of the Presbyterian Church throughout the United States, that has a membership of about 1,200,000.

Now it is not necessary for me to tell you, gentlemen, the position of the Presbyterian Church upon this question. Through its presbyteries and synods and general assembly, through all its history, it has made declaration after declaration asserting its unchangeable and eternal opposition to this traffic in intoxicating liquors, so that it is not necessary for me to say that the Presbyterian Church, not only in Washington, but throughout the whole country, is watching with a great deal of interest the action that is taken by this committee on the Webber bill.

Now I shall pass from that and occupy the few moments at my disposal in calling your attention to a few things. My only satisfaction in the limit of time given to me is my confidence in the integrity and intelligence of this committee. I read in a paper this morning that a very elaborate letter was written to the chairman of this committee opposing this bill, and the first argument that was used in that letter was the principle of personal liberty.

Now, we will not say that if this bill is passed, or if it is passed by the House of Representatives, it will interfere with a certain kind of personal liberty; but I want to emphasize to you, gentlemen, that it will interfere with no personal liberties that are granted by the United States Constitution, and those are the liberties that you are sworn to maintain. [Applause.]

The United States Supreme Court has declared that no one has any inherent right to sell liquor, and that any State legislature may restrict it to any degree, or entirely prohibit its manufacture or sale within the borders of that State. This is the spirit of the Constitution of the United States as interpreted by the Supreme Court in its application to personal liberty, and we are only supposed to guarantee those liberties that are declared in the United States Constitution, or the spirit of it:

In the same letter we would be given to understand that we are advocating something here that is revolutionary in its character. It is not so, gentlemen, by any manner of means. Already one-half of the territory of this great country of ours has prohibited the sale of intoxicating drinks, and 33,000,000 of the population of this country at the present time are forbidden to have this liquor dispensed to them according to law. Thirty-three millions of the people of the United States are under some form of prohibition, and one-half of the territory of the United States, according to the best statistics that I could gain access to; so that it is not anything revolutionary or anything that has not been tried already and found satisfactory, but, on the contrary, it is something that is constantly growing in this country.

Now, gentlemen, the question, as we see it, is whether we are going to allow the municipalities of this country and the legislatures of the several States to advance along this line of modern reform and then that the Federal Government should have the humiliation to come in at the tail end.

Mr. OLCOTT. You spoke of prohibition in many of the States as having been found satisfactory. Have you statistics showing a material reduction in the number of jails and poorhouses where prohibition has been introduced?

Mr. WEBBER. In Kansas there are thirty-odd jails with nothing in them; thirty-odd counties in Kansas where there is nobody in the jails. That is true of Maine, too.

Mr. MACLEOD. In those Territories and in the District of Columbia where the Federal Government has absolute control we should try as far as we can to give the most sublime example to the whole country, instead of hesitating upon these great questions and allowing the municipalities and legislatures of the different States throughout the country to force us to come in at the tail end of the procession. A person does not need to be a prophet to know what the result will be. If you will permit me to read an extract from a paper or publication in Pittsburg, it will tell you their prophecy, as far as it goes. [Reads:]

The president of the National Retail Liquor Dealers' Association, in his address before their convention in Pittsburg, said: "Peer into every city, town, and hamlet; then read the city ordinances; visit the different legislatures and the halls of the Congress of the United States; consult with your lawmakers, and you will be astonished at the combinations arrayed against the traffic that we represent. The truth is the enemy is gaining ground rapidly upon us, and we are being overpowered by the tremendous forces battling against us."

There is their prophecy as regards the future, so far as it goes. But we are more optimistic still. We believe that the time is not far distant when this evil, which is now a paramount evil in the country, will be destroyed. The question is, what is the position we will occupy as a Federal Government? Will we lead in this matter or will we come in at the tail end of the procession? [Applause.]

Mr. WEBBER. We will now hear from Rev. Weston Bruner, of the Baptist churches of the District.

STATEMENT OF REV. WESTON BRUNER, REPRESENTING THE BAPTIST CHURCHES OF THE DISTRICT OF COLUMBIA.

Doctor BRUNER. Mr. Chairman and gentlemen of the committee, I am very happy in being permitted to come here and represent the Baptists of the District of Columbia, numbering about 7,000, and likewise the Baptists of the whole United States, representing more than 5,000,000 in actual church membership and a population of some 15,000,000 in the United States.

We are in favor of this bill that prohibits the saloon in the District of Columbia. We are in favor of it because of reasons that have just been stated here on the floor, and we are in favor of it not only because of the cost of the liquor traffic to our people and the people generally, but also because in itself the liquor traffic is wrong.

The liquor business is not an inherent right that belongs to these people who represent it, and who hire brainy and learned men to come

here when a bill like this is discussed to oppose it. It is a privilege that is granted for a consideration, and that consideration is a certain amount of money for a license, and then that grants them the privilege to debauch and ruin the homes of the land. These gentlemen that represent those interests here this morning, if they are men of families and have, for example, a fair girl 16 years old, would they set a price on her head? Or if they have boys that they want to carry their names and follow their footsteps, would they be willing for a consideration to place a price upon the heads of those boys and give the saloon man a chance to destroy them? I do not believe that they would.

The public is beginning to see that this is the iniquity of the ages, and wherever the people have been given a chance in these last few years to say that they are in favor of or oppose the saloons, in nine cases out of ten they have said, "The saloon shall go."

I am a Kentuckian; and Kentucky, with all her faults, I love her still. In Kentucky to-day, a State that makes more liquor than any other State in the Union, 90 counties out of 119 have what they call the local-option law; and here in the District of Columbia, if it could be put to a vote of the people, I believe that two out of every three would vote that the saloons should go.

I have the honor to be the pastor of a church here. We have in our congregation many workingmen, although we have many men of means; but we have a great many workingmen, and those men to a man are opposed to the saloons, because the Baptists are all sober people. It would not be permitted for a Baptist to be in a church if he were engaged in the saloon business or the distilling business. We represent a population of 20,000 in the District, and we are 5,000,000 strong in the United States, and we stand to-day as a solid phalanx and say, "Give us a chance to raise our boys and girls so that they may be an honor to their country, and an honor to the names they bear, and faithful and loyal to their God."

The times are changing, and we are changing with them. We are the cynosure of all eyes. We are in the capital of the greatest country in the greatest age the world has ever seen in the universe of God, and all eyes are looking upon us; and I believe it is for us to take the lead in this great movement, and not be at the tail end of the procession. [Applause.]

Mr. WEBBER. We will now hear from the Rev. George W. King.

STATEMENT OF REV. GEORGE W. KING, REPRESENTING THE METHODIST CHURCHES OF THE DISTRICT OF COLUMBIA.

Mr. KING. Mr. Chairman and gentlemen, there are 7,000,000 Methodists in America. There are 40,000 Methodist preachers. There are 3,000,000 members of the Methodist Episcopal Church, of which I am a minister. There are 18,000 pastors in the Methodist Episcopal Church, and my belief and knowledge is that this great body of Methodists are in favor of prohibition everywhere, and of course they are in favor of it in the District of Columbia.

In the city of Washington we have 8,000 members in the Methodist Episcopal Church. We have 8,000 Sunday-school people and 2,000 Epworth Leaguers, and, if we add the adherents to our church, it is a conservative estimate to say that there are 25,000 people connected

with the Methodist Episcopal Church in the city of Washington; and I stand here this morning representing, I believe in truth and sincerity, this great body of Methodists throughout the country and in the District, and for them I ask you that this bill shall go to the House.

Now, I wish I had an hour. Just let me read one little statement from the Discipline of the Methodist Episcopal Church, that contains 3,000,000 members and 18,000 pastors. The bishops of this great church have said: "It [the liquor traffic] can never be legalized without sin." Here is a statement [indicating] covering several pages of the discipline of our church, committing the whole general conference of our church, the legislative body which meets once in four years, and which makes laws for the whole denomination—here is the discipline of our church pronouncing itself absolutely and unqualifiedly in favor of the prohibition of the liquor traffic.

Now, I would like to go on and say a good deal about the Methodist Church in general, and the Methodist Church in Washington particularly. But I want especially to say this: That I am in favor of this bill, not simply as a Methodist and as a preacher, but as a man; and my honest belief is that from the standpoint of political economy there is not an argument that any man has ever produced that really supports the saloons. Some of the friends on the other side—and I feel like saying as Lincoln said about another matter, "With malice toward none and charity for all, we propose to press on and aid this work"—I would like to say to those gentlemen on the other side, for whom we have no personal malice, that I believe in my heart the prohibition of the liquor traffic ought to be enacted for the sake of the men that are in the business, the saloon keepers; and I would like to argue that if I had the time.

Concerning this personal liberty matter, I took out of the Washington Herald, just yesterday, a statement concerning the sale of cocaine in the city of Washington, and Major Sylvester is recommending a change in the pharmacy law so that this iniquitous thing can be prohibited more effectively in the city of Washington. And yet these gentlemen tell us that we infringe upon liberty when we attempt to prohibit the sale of liquor.

The CHAIRMAN. Congress has acted upon that matter. It has passed a law covering that subject.

Mr. KING. Yes. But here is a statement in the paper to the effect that there is demand for the passage of a more stringent law.

Mr. CAMPBELL. The law at present is as stringent as it can be made. I prepared the bill myself, and it is absolutely prohibitive, and imposes every penalty that can be imposed for violations of that kind. The only question is as to its enforcement.

Mr. KING. I only make the statement for the reason that if we have the right to prohibit it, and if you can prohibit cocaine, or the sale of it, why not liquor and everything of the same sort?

Now, gentlemen, I must close, and I simply want to hand to this committee, if I may, an editorial in the Washington Post of a few weeks ago on "Dram-drinking and Business." In this editorial I will read simply one statement. (Reads:)

DRAM DRINKING AND BUSINESS.

The Lehigh Valley Railroad has served notice on its employees that they must be total abstainers from alcoholic drinks or leave the service of that company,

and it is quite likely that all the other lines in the United States will adopt the same rule. It is only cumulative evidence that there are enough sober men in the world to do the world's work. There is a mighty change in society since Squire Western was a foxhunter. The younger Pitt, while prime minister, made those splendid orations when more than half seas over, but he was a genius; and yet the England of to-day would not tolerate "a four-bottle man," even though he were all either Pitt was.

It is the greatest of the evils, this dram drinking. It curbs the will; it stains the character; it is the advance agent of poverty; it impairs the intellect; it alienates friends; it humiliates kindred; it eradicates pride. First it exhilarates, then exalts, then banishes responsibility; but the pendulum swings just as far the other way. The debauch is a remorseless creditor, and exacts with pitiless extortion the utmost farthing. There is no escape from the debt, and it can only be discharged in cash and by prompt payment, the only legal tender—regret, remorse, and shame.

That is the experience of every drunkard, even of the genius, the one man who has anything that is a stagger of an excuse for overindulgence in the flowing bowl. The world is getting more impatient in this behalf daily. The evil is growing less and less, and a time will come, sooner than is expected, when to work a man must not impair his mental and physical energies nor bankrupt his moral character by drink.

A drunken officer on the field of battle is not more out of place than a drunken engineer on a railroad locomotive. A drunken cashier of a bank is as much out of place as a drunken doctor in a sick room. A drunken lawyer in a court-house is not more out of place than a drunken statesman in the legislative hall.

Public opinion will settle the liquor question if left to deal with it in a practical way.

I would like to pass in the entire editorial as part of what I want to say; but especially I want to say for the Methodist Church, as a man, that I stand here to-day and plead with you men that this bill may go where it ought to go, and I sincerely trust it may be enacted into law in the District of Columbia.

Mr. WEBBER. There are a large number of petitions here, signed by a great many people in the District of Columbia, that I want you gentlemen to consider, together with others that have just been handed in.

The CHAIRMAN. Where are they?

Mr. WEBBER. Quite a number of them have been or will be presented to the committee when the opportunity offers. They will be presented to the committee with a statement of what they are.

The CHAIRMAN. Very well.

Mr. WEBBER. We will next introduce Reverend Mr. Power.

STATEMENT OF REV. FREDERICK D. POWER, PASTOR OF THE CHRISTIAN CHURCH, DISTRICT OF COLUMBIA.

Mr. POWER. Mr. Chairman and gentlemen, I have been pastor in this city for thirty-two years. I was pastor of President Garfield and chaplain of the Forty-seventh Congress. I represent a congregation of 1,200 men, women, and little children, and a denominational constituency in the city of at least 4,000. I represent also the Church of the Disciples of Christ in this country, with a membership of 1,200,000, and also the Christian Endeavor Society as a trustee of the United Society, which has between 3,000,000 and 4,000,000 young people enrolled in its membership.

The great Master said, gentlemen, "A tree is known by its fruits." The fruits of this tree are pauperism and crime. No man can show one good thing that the saloon has ever produced. I have buried dozens of its victims. I have been called to minister to scores of

homes that it has beggared. I have to pay my proportion of the taxes to maintain the institutions, the jail, the workhouse, the penitentiary, the insane asylum, which the saloon, in large measure, makes necessary.

Gentlemen, you talk here about child labor, and you talk well; but where one child suffers from the cotton mills or the glass factories or the flax mills, a thousand are injured by the rum mill.

Gentlemen, you are statesmen. I want to quote to you the words of the greatest world's statesman, I think you will concede, of the last one hundred years. Mr. Gladstone said before the House of Commons, speaking of the liquor traffic: "The liquor traffic has wrought more harm than the three historical scourges—war, famine, and pestilence combined." Gentlemen, you would exercise all your wisdom to save this city from the scourge of war. You would appropriate money freely and promptly to help this city in time of famine. You would take action prompt and positive to aid these people that appeal to you in time of pestilence. Gentlemen, an institution which does more harm, according to one of the greatest statesmen that ever lived in the world's history, than war, famine, and pestilence combined, certainly calls for drastic action on your part. Let me quote from the words of another statesman whom you have all honored this week, keeping the 90th anniversary of his lowly birth. Abraham Lincoln said (reads):

This legalized liquor traffic, as carried on in the saloons and grog shops, is the great tragedy of civilization. The saloon has proved itself to be the greatest foe, the most blighting curse that has ever found a home in our modern civilization, and this is the reason why I am a political prohibitionist. Prohibition brings the desired result. It suppresses the saloon by law. It stamps and brands the saloon keeper as a criminal in the sight of God and man. By licensing the saloon we feed with one hand the fires of appetite we are striving to quench with the other. While this state of things continues, let us know that this war is all our own—both sides of it—until this guilty connivance of our own actions shall be withdrawn. I am a prohibitionist because prohibition destroys destruction.

Again listen:

The liquor traffic is a cancer in society, eating out its vitals and threatening destruction, and all attempts to regulate it will aggravate the evil. There must be no attempts to regulate the cancer; it must be eradicated; not a root must be left behind, for until this is done all classes must continue in danger of becoming victims of strong drink.

I thank you, gentlemen.

The CHAIRMAN. Mr. Webber, you have ten minutes. Do you wish to use it now?

Mr. WEBBER. That does not take up the time since we started, Mr. Chairman.

The CHAIRMAN. We started at 10.30 o'clock exactly. It is now 11.06.

Mr. WEBBER. We will call on Rev. David L. Blakemore, of the Methodist Episcopal Church.

STATEMENT OF REV. DAVID L. BLAKEMORE, REPRESENTING THE METHODIST EPISCOPAL CHURCH SOUTH, DISTRICT OF COLUMBIA.

Mr. BLAKEMORE. Mr. Chairman and gentlemen of the committee, I represent the Methodist Episcopal Church South in the District of Columbia. Our preachers' meeting in Washington and vicinity

passed unanimous and hearty resolutions in favor of this bill, and our preachers' meeting represents a constituency of about 4,000. I think I can speak for the Methodist Episcopal Church South, which covers a large territory in the southland, where this question is a burning question and forging ahead.

Mr. WEBBER. Now we will hear from Mrs. Smith, president of the District Women's Christian Temperance Union organizations.

STATEMENT OF MRS. CLINTON SMITH, PRESIDENT OF THE WOMEN'S CHRISTIAN TEMPERANCE UNION OF THE DISTRICT OF COLUMBIA.

Mrs. SMITH. Mr. Chairman and gentlemen, I am the only white ribboner who will speak here to-day, and I am proud to be here addressing this committee. My constituency, 1,000 paid up members, bona fide residents of the District of Columbia, are all for this bill. Many of them are pacing the hall and corridors of Congress to-day, and their hearts are with us. They all want you to report this bill to the House. We want you to report it to-day, before this meeting adjourns. [Laughter.] We want you to report it to-day. That is our united petition.

I have lived under prohibition for forty years, and I know that prohibition prohibits very well in a prohibition State, as well as other laws. I have lived in the District of Columbia fifteen years under license, and I know that the prohibitory law under which I lived was better enforced than the license law of the District of Columbia. [Applause.] I have seen the works of this law in the District of Columbia and the works of the prohibitory law in my State, and I solemnly declare the latter is better enforced. It is not a solemn farce, such as the license law is here in the District of Columbia. The liquor traffic enervates everything it touches. Our excise board and other officers become weak and enervated, giving up and yielding to the demands of the liquor traffic. [Applause.]

Mr. WEBBER. Mr. Vanmater, of the Rechabites, will now be heard.

STATEMENT OF MR. W. C. VANMATER, REPRESENTING THE INDEPENDENT ORDER OF RECHABITES.

Mr. VANMATER. Mr. Chairman and gentlemen of the committee, I have been directed by the high chief ruler of the Independent Order of Rechabites, the oldest temperance order in North America, to earnestly appeal to you gentlemen for a favorable report on the Webber bill pending before this committee.

I am well aware that there is opposition to this bill, as you know that no bill comes before a legislative body without opposition. They tell you that a prohibition law does not prohibit. If that be the case, why is there not whisky sold in the Capitol building of the Government? If that be the case, why is there an appeal made for the canteens of the Army, from which it has been prohibited? If that be the case, why is not whisky sold in the Soldiers' Home of the District? The Congress of the United States has passed a bill prohibiting the sale of it within a mile of the Soldiers' Home.

They tell you, gentlemen, that you interfere with the personal rights of men when you prohibit the sale of whisky in the Soldiers' Home, and within one small Soldiers' Home. Did you not then and

then take the personal right away from the inmates of that Home? And you must remember that in doing that you only took the right away from them, and there were no children to suffer from their acts. It was only a personal act of their own. But when you prohibit it in the District of Columbia, the men who use it to a sufficient point to make their homes miserable, break the hearts of their wives, and destroy the lives of their children—yea, I say, gentlemen, those who commit a sin against unborn children—is it not a time when you should prohibit those men and take from them their so-called personal right and let the generation that is coming up, that will rule the Congress of the United States and all the branches of the Government, be men of sound mind, not polluted by the use of that which destroys not only the mind, but destroys the soul?

MR. WEBBER. Rev. Z. H. Copp, representing the Good Citizenship Committee—is he present? He does not answer, and so I will call on Rev. C. F. Winbigler, representing the Prohibition Crusaders.

STATEMENT OF REV. C. F. WINBIGLER, REPRESENTING THE PROHIBITION CRUSADERS OF THE DISTRICT OF COLUMBIA.

MR. WINBIGLER. I have the privilege this morning, gentlemen, to speak in behalf of the Crusaders of this District, the Prohibition Crusaders, who comprise over 900 members. They are in favor of the prohibition of the liquor traffic, because they believe that saloons are not necessary, that they have never done any good, and that it is an illegitimate business, and that it comes counter to and antagonizes every legitimate business in the District of Columbia.

We hope that you will report this bill to the House, and we hope earnestly indeed that the House will pass it, as well as the Senate, so that we shall be rid of this incubus and this parasite on the body politic of this country.

MR. WEBBER. We will now hear from Mr. Shoemaker, representing the Good Templars.

STATEMENT OF MR. ALBERT E. SHOEMAKER, REPRESENTING THE GOOD TEMPLARS OF THE DISTRICT OF COLUMBIA.

MR. SHOEMAKER. Mr. Chairman and gentlemen, I have the honor to speak for the Good Templars of this country and of this city. There are many thousands of them. All of them are against the liquor traffic. I think that every Good Templar in the District of Columbia, with possibly one or two exceptions, speak for the passage of this bill.

I have but little time to talk to you, but I want to insert in the record, if possible, a statement from a legal publication of the State of West Virginia, "The Bar"—a statement as to the conditions in the counties of West Virginia, a comparative statement as evidenced by the inmates of the penitentiary of that State.

I am reminded that I also represent the Anti-Saloon League of the District of Columbia; and in that connection I want to say that the conditions in this city are not what so many of us think they are. I want to say to you that the law we have now, in my judgment, is in the nature of a farce. It is said that the people can help themselves; that they have local option here; that they can get rid of a saloon anywhere in the city if they want to get rid of it. But ever since this

law was passed in 1893 there has been but one saloon closed by the operation of that law. In other words, every saloon keeper, when he gets in a neighborhood, intrenches himself in some way. He is bright; he looks after his own interests; and I have in my mind a case in the northwest section of this city of a saloon that has been established there for many years; it is now in a neighborhood of splendid residences, with two United States Senators living in the neighborhood, and a beautiful school erected near by.

The CHAIRMAN. What location is that?

Mr. SHOEMAKER. Nineteenth and T streets.

Mr. SIMS. If it is a good business——

The CHAIRMAN. That should go.

Mr. SIMS. If it is a good business why not let it go on?

Mr. SHOEMAKER. The majority of the property owners say "Let it go," and they have been saying so for several years; but that saloon is there to-day.

A LADY BYSTANDER. Tell about trying to close one up on protest, and permitting it to open a door on another street.

Mr. SHOEMAKER. I have not time for this, I know, but under our law we now have a saloon on a street where the people protested against it, and the majority of the householders are against it, and they have said so to the excise board. In this instance two streets come together at a point and the saloon keeper encountered opposition on the street upon which the entrance was. All he had to do was to move his door two feet around the corner; and that is in defiance of the spirit of the law and the sentiment of the people. There is a case of that kind on Washington circle.

The CHAIRMAN. Is not that a point as to the discretion of the excise board? Is it not a technical violation of law?

Mr. SHOEMAKER. Yes.

The CHAIRMAN. I agree with you personally. I have seen it myself in my efforts to look into this matter.

Mr. CAMPBELL. The excise law as it is now is violated right along?

Mr. SHOEMAKER. Yes; in some particulars the law is violated. The evident intention of Congress has not been carried out.

Mr. TAYLOR. The law is weak.

Mr. SHOEMAKER. Yes; the law is weak. The spirit of the law, at least, is violated.

The CHAIRMAN. He has one door where he gets out on the Government reservation?

Mr. SHOEMAKER. Yes. He closed the door on Pennsylvania avenue and opened one 2 feet around the corner, fronting a reservation, and no consent signatures were necessary, except that of the owner of the building in which the saloon was located.

The CHAIRMAN. It is a technical violation of the spirit of the law?

Mr. SHOEMAKER. Yes.

Mr. SIMS. Is there no law here to prohibit opening saloons on Government reservations?

Mr. SHOEMAKER. No, sir.

The CHAIRMAN. The saloon is not on the Government reservation, but the door opens out on the Government reservation.

Mr. SIMS. It faces it?

Mr. SHOEMAKER. Yes.

(Filed by Mr. Albert E. Shoemaker:)

SUGGESTIVE FIGURES.

There are some very suggestive figures in the report of C. C. Haddox, the warden of our State penitentiary. We take from the report the following:

The ratio of convicts in 1890 was 1 to 2,560 of population; in 1900, 1 to each 2,018 of population, and in 1906 is estimated to be 1 to each 1,338 of population. These ratios are not particularly valuable, however, for the reason that they are made to apply to the whole State, whereas the bulk of the convict population is obtained from a few counties. The ratio of convicts to the total population of Nicholas County (no license) is 1 to each 6,500 of population, while its neighbor county of Fayette (license) is 1 to each 277 of population. The ratio in Preston County is 1 to each 8,330 population, while in McDowell County it is 1 to each 233. In Barbour the ratio is 1 to 18,000, while in Mercer it is 1 to 605.

The population of the five counties furnishing over one-half of the criminal population was 139,812. The population of the other fifty counties furnishing less than half the criminals was 818,988.

Of the 828 State convicts Fayette County contributed 130; McDowell County, 107; Kanawha County, 95; Mercer County, 43, and Mingo County, 40, or a total for the five counties of 415, against a total of 413 from the other fifty counties of the State.

The counties of Barbour, Doddridge, Hancock, Hardy, Jackson, Jefferson, Monroe, Morgan, Nicholas, Preston, Pleasants, Taylor, and Webster combined furnished but 20 convicts, or just one-half of what Mingo County alone furnished.

The population of these thirteen counties in 1900 was 169,600, while the population of Mingo County at the last census was but 11,359, or one-fifteenth as much.

Fully 80 per cent of the crimes committed in these regions are murder and kindred crimes, the direct result of the indiscriminate, unregulated sale of adulterated liquors and cocaine, coupled with an equally unregulated and unrestrained sale and use of firearms. The fair name of West Virginia is thus unnecessarily besmirched and her criminal population unduly augmented.

The population of Nebraska was practically the same as or greater than West Virginia at the last census, but her convict population is but 330, against our convict population of 828.

Out of an appropriation for criminal charges of \$150,000 for 1903 these five counties absorbed \$62,159.22, and from the appropriation of \$130,00 for 1904 they obtained \$68,254.37.

Mr. WEBBER. We will now hear from Edward Tarring, of the Christian Endeavor Society.

STATEMENT OF MR. EDWARD TARRING, REPRESENTING THE CHRISTIAN ENDEAVOR UNION OF THE DISTRICT OF COLUMBIA.

Mr. TARRING. Mr. Chairman and gentlemen—

The CHAIRMAN. Mr. Webber, the time of your side has expired.

Mr. TARRING. I am president of the District Endeavor Union, representing over 100 different societies, comprising 8 denominations and over 6,000 or 7,000 young people, such as myself. [Laughter.] We come here and ask you and beg of you to present this bill, because we want you to do it. Incidentally, I am in the insurance business, and my company, the Penn Mutual Life Insurance Company, of Philadelphia, will not under any circumstances take a man who sells liquor or a bar tender. They are in the same class as a locomotive fireman and brakeman. They are absolutely prohibited.

Mr. WEBBER. I will now introduce Mr. William A. Hickey.

STATEMENT OF MR. WILLIAM A. HICKEY, REPRESENTING THE CATHOLIC TOTAL ABSTINENCE UNION, DISTRICT OF COLUMBIA.

Mr. HICKEY. Mr. Chairman and gentlemen, I am secretary of the Catholic Total Abstinence Union. We are the youngest organization in temperance work in the District of Columbia. In one year we have aligned 300 men and women, communicants of our church, in this great movement, and we stand here and act concertedly with our affiliated members of the Christian churches, and act with the lay members of the church in their opposition to the liquor traffic and in alignment with the friends of the Webber bill.

Mr. WEBBER. Rev. C. O. Isaacs has some resolutions and letters which he desires to file—one resolution passed by the Anacostia Men's Club, of the Anacostia Methodist Episcopal Church, and one by the Epworth League, of the Metropolitan Memorial M. E. Church, and others, strongly favoring the enactment of the Webber bill.

The CHAIRMAN. I want to lay before the committee a letter signed by Mr. Simon Wolf [submitting following]:

WASHINGTON, D. C., February 12, 1907.

HON. J. W. BABCOCK, M. C., *Washington, D. C.*

MY DEAR MR. BABCOCK: I have been made aware of the fact that on Thursday next, in the room of the District Committee at the Capitol, there is to be a hearing of the Webber bill. As it is barely possible that I shall be prevented from being present. I take the liberty of bringing to your and the committee's attention the following ideas which I have on the subject to be discussed before you:

First. As an American citizen I protest against the infringement of my personal and those of my fellow-citizens of the District.

Second. There is no reason in the world why this law should be enacted against the well-known wishes of a majority of the citizens of the District; and if the proponents of the legislation doubt this statement, I ask you to report the bill and rush it through Congress, to the effect that the citizens of the District of Columbia shall have a chance of voting for or against prohibition, and in that measure inhibit the clerks of the Departments from voting, as they are citizens, to a large extent, of the respective States of the Union, and vote on State and national occasions in those States; and therefore it would be objectionable to permit them to have a voice in the government of the District.

Third. The experience had in the States of Maine, Iowa, and Kansas is so overwhelmingly against prohibition, that "he who runs may read." In one State the population has decreased. The number of children attending public school has also decreased. In another, crime has been on the increase and the purchase of liquor is easier than it was when regulated by law. In other words, prohibition does not prohibit.

Fourth. One of the best illustrations as to the foolishness of legislation of this character is evidenced by the abolition of the army canteen. It is a well-known and irrefutable fact that that legislation was brought about mainly by the liquor dealers themselves, adjacent to the army posts, they being well aware that the abolition of the canteen would bring about the very condition that has since disgraced our Army records. Riots and disorder have followed close upon this abolition, and the now notorious Brownsville trouble, is traceable to the abolition of the army canteen, proving conclusively that when legislators attempt to legislate virtue into the average human being, that instead of accomplishing the desired object, produce vice and crime; and the passage of any restricting measure in the District of Columbia would have the same result.

Fifth. What better legislation could be had for an intelligent community than that which we already enjoy and have lived under for many years? Local option obtains in the District of Columbia. No one can be licensed to sell liquor unless they have the indorsements and approval of a majority of the property owners and residents on the given square; and if any of these licensed dealers should so far forget themselves as to violate the law, that same majority can undo its act. It certainly seems most reasonable and judicious to any sane American that this is ample protection in all directions.

Sixth. The experience of every community has proven that what is needed to prevent excesses is education. Not alone the education of the mind, but the education of those physical wants which constitute the ordinary means of living. In other words, to be temperate, not only in eating and drinking, but in judgment, and not to be intemperate in any one direction. It does not necessarily follow that because people do not drink, that they are by virtue of that omission, virtuous or intelligent. The worst crimes known to history have been committed by nations that by force of religion and rearing never drink; and the greatest acts of heroism and moral accomplishment have been performed by those who have in a moderate manner enjoyed those things which God and nature provided for them.

Seventh. Why is it that the Jews, who have been for centuries persecuted and hounded from pillar to post, which ordinarily is made an excuse for drinking, have been the greatest apostles of temperance, not of total abstemiousness, not of prohibition, but of enjoying in a moderate degree all those things which are provided for the sustenance of our existence? It would be a most lamentable admission to the whole world to prohibit in the District of Columbia, at the nation's capital, that which is regarded as one of the essentials of social life. Have these good friends, who, actuated no doubt by sincere purposes, though hampered by imperfect judgment, forgotten the lesson that our American citizens have brought back with them from Europe, to the extent of having been made aware that there is scarcely a drunkard in any of the European countries; that men and women and children commingle together in the places of enjoyment where they hear music and song, and drink their light wines and beer, discussing national and local issues, and dissipation is as foreign to their purposes as the moon? If legislation could prohibit the treating system, and the standing up in front of a bar and pouring down a half dozen drinks at a time, there might be some sense and purpose in such prohibition, for that class of imbibing is purely American. I remember the late Vice-President Henry Wilson, of the United States, told me after returning from a trip to Europe that he had all his life been a total abstainer and an advocate of prohibition, but that since he had made a tour of Europe he was completely converted, and felt confident that if the American people could be educated to drink in a moderate, sensible way that it would be a blessing instead of a curse.

Eighth. Finally, Mr. Chairman and gentlemen of the committee, I once more urge upon you to disregard all questions of sentiment. They belong to the home and to the church. There is where education is to be inculcated; there is where the moral lessons are to be received and promulgated. This question of prohibition is one of practical utility. Men can not be restricted by law. They can be punished by law. The best of us are nothing more or less than children in revolt against an imposition on the part of anyone. The citizens of the District of Columbia happen to be most unfortunately situated. They have no voice in their government; while recognizing the admirable qualities of the Commissioners, and recognizing the integrity of their administration, nevertheless they fret and fume under the misfortune of being nobodies in the administration of their own affairs. The Government of the United States is formed on universal suffrage, and our community should be permitted to exercise that priceless boon and privilege, and as I have already said, if this question of prohibition is so paramount, then let the majority of our citizens decide, and whatever that majority declare the minority will bow in acquiescence, and no one will regard it with more respect than myself, as I believe in a government of the majority, and if that majority is wrong, dictatorial, and unwise in its legislation then it behooves the minority to begin a campaign of education to overthrow the majority. Do not, Mr. Chairman, experiment with the social rights of the citizens of the District of Columbia any further. We have time and again suffered under the imposition on the plea of paying but one-half the taxes. I, for one, would rather pay all, to be free and unhampered in my judgment and opinions, than to be made the suppliant slave of those who would impose burdens on the plea of conferring benefits.

Yours, very sincerely,

SIMON WOLF.

Mr. WEBBER. I would like to have the Central Union Mission recorded in favor of the Webber bill, represented here by Rev. Richard Riedel.

We will now hear from Mr. A. M. Brown.

STATEMENT OF MR. A. M. BROWN.

Mr. BROWN. Mr. Chairman, as a representative of the First Universalist Church of Washington and also a representative of the Temperance Crusaders of this city, the direct statement is made that our societies are units on prohibition and all degrading influences and associations.

We desire prohibition for the District of Columbia. We desire conditions measuring up to the highest and the best in the land. Those best conditions do not obtain in saloon territory. Those better conditions do not crop out about the saloon or emanate and mature in the barroom.

We desire conditions with the least disturbing influences. We desire conditions that do not beget candidates for jails and penitentiaries, and poorhouses and police courts. Such conditions are the inevitable results of saloon occupation. Prohibition will cure the cause.

A drunken man on the streets of this city is liable to arrest and punishment, but the man who made him drunk, in a slip of justice, goes free, to repeat the process indefinitely, through the agency of the city government, for a price.

That man has paid \$800 per year for the privilege of furnishing subjects for the jails, the penitentiaries, the poorhouses, and the police courts of the city government. Every \$800 the District government receives for a saloon license costs that government more than \$1,600 to care for the exhibits the saloon produces in its legalized work of pauperizing humanity.

A careful statistician has made this undisputed statement: "The District government paid \$398,310 more for police protection than it receives from its saloons."

The widows and orphans of the drunkards' homes are appealing to God and to you for relief, by removing the saloon, the cause of their distress.

You know, and I know, and God knows that the saloon is responsible for nine-tenths of the crime and misery and disorder on record in this city, and nearly the other tenth also.

The Webber bill, mentally, morally, and physically, individually and collectively, assures our people of the gilt-edged conditions it represents for the people of the District of Columbia on prohibition.

The fate of the Webber bill lies in the hands of your honorable committee.

The ounce of prevention, in prohibition for the District of Columbia, is worth more than all the gall represented in the pounds of cure, in the jails and penitentiaries, and police court sentences for crime.

Shut off the cause and the effect will be wanting. The people of Washington are aroused as never before on this question of personal rights, and home protection from the results of saloon influence.

Personal knowledge of these depraved conditions dates back to 1849 in this city, and the conditions still continue unabated.

Reason and justice and individual rights are paramount conditions which the saloon tends to obliterate and destroy.

The God-fearing W. C. T. U., the church, the clergy, and the progressive instincts of self-preservation all stand for prohibition.

That this Committee on the District of Columbia will advance the Webbed bill to the floor of the House, that Congress may determine its merits on the basis of a better as well as a greater Washington, is the prayer of your petitioners confidently expressed.

STATEMENT OF MR. ROBERT CRAIN, GENERAL COUNSEL FOR THE UNITED STATES BREWERS' ASSOCIATION.

Mr. CRAIN. Mr. Chairman and gentlemen of the committee, as general counsel for the United States Brewers' Association, an association that comprises the brewers of this country, I desire only to enter a protest against the passage of this bill.

Of course, any discussion of the great questions involved in prohibition would be altogether out of the question in a five or ten minutes' speech. We have nothing to say against our friends—good friends, good women and good men—who think they are doing a good work. I never attended one of these meetings without feeling a real sympathy for them. [Laughter.] They have been engaged in this work for a hundred years, and at the end of that period of time they have brought about a worse condition of affairs than existed at the commencement of the battle which they have attempted to wage.

When we consider that this prohibition question has been thoughtfully studied by the most thoughtful men of this world, including the men of America, and that those thoughtful students of philosophy and of the times and of the conditions have reached one single conclusion, and that conclusion in direct opposition to that of our good friends and all that they represent here to-day, we feel that they ought at least at this time to awaken to a sense that the fight in which they have been engaged is absolutely the wrong way to accomplish a good purpose.

I can not take up the five minutes of time at my disposal in any discussion of the large prohibition questions. I desire, however, to read one or two lines from one or two of the most thoughtful men in this country, well known, I suppose, to our friends representing all the different churches, known to our friends of the temperance cause, including the ladies as well—men who have given the best years of their lives to the study of this question; and I will let them speak regarding their views as to what the Prohibition party has accomplished in American politics.

Mr. SIMS. Let me ask you a question on the bill. If this bill is passed do you think it will decrease the consumption of beer in the District of Columbia?

Mr. CRAIN. I believe it will.

Mr. SIMS. Then it will be a success to that extent?

Mr. CRAIN. Not at all. I want to say to my learned friend that from the time Alexander Hamilton entered the Cabinet of George Washington down to the present day, figures and facts and investigations the world over have shown that beer has been hurtful to no man or no woman in any part of the civilized world. [Derisive laughter.]

Mr. KLINE. Beer moderately used. I believe that is a fact.

Mr. CRAIN. Oh, as for this laughing, there were those who laughed while Rome burned, but the city was destroyed. These things are

facts; these things are the living facts, as proved by statistics in every civilized country on this earth.

This question has been investigated by a body of men who, for intelligence, integrity, and high character never were excelled in America in the investigation of any question. I refer to what is known as the Committee of Fifty. Seth Low, of New York, the president of Princeton, the president of Yale, the presidents of all the great institutions of learning in this country made an investigation, and that investigation shows absolutely that the contention of our friends here to-day is wrong. I suppose our friends have heard of the Rev. Dr. Lyman Abbott—Lyman Abbott—student, philosopher, orator, scholar, investigator, without one breath of suspicion against his high motives; one of the ablest preachers that this country or any other country ever produced; one of the greatest of American scholars.

You will recollect that when Lyman Abbott started an investigation of this problem for the purpose of doing a monumental service and finding out the best way to meet the very difficulties which our friends here to-day are endeavoring to meet; after an investigation extending from year to year, with all the brilliancy of his intellect exerted in the arduous task which he had assumed, he reached the conclusion that the prohibition laws of this country were a farce, and that they were a disgrace, and that they ought not to be put on any statute books in any State in the American Union.

Now let me say to you what Doctor Potter—Bishop Potter—the Right Rev. Henry C. Potter—says [derisive laughter, hisses, and applause]—

The CHAIRMAN. Ladies and gentlemen I insist that order shall be preserved.

Bishop Henry C. Potter [laughter]. Let the ladies laugh if they wish; I do not object to it, for it only shows the weakness of their cause. Bishop Potter! Who laughs at Bishop Potter? Where is the intellect; where is the mind; where is the thought; where is the brain—stand up and show yourself—and then look at the picture of Henry C. Potter, the greatest bishop the Episcopal Church of this country ever had. Who laughs! Ah, who laughs! Bishop Potter said, in a letter to Doctor Abbott (in the Outlook of March 11, 1889):

It is the old situation—as old as the religion of Jesus Christ—with the Scribes and the Pharisee, on the one hand; the Sadducees on the other, and over and against them the truth.

No more perfect reproduction of the first named has appeared in our day than the Prohibitionists—et id omne genus—arrogant, denunciatory, ignorant, unscrupulous, and untruthful, holding one meager fragment of truth to their eyes, and denying great and fundamental facts in human nature, in their futile and foolish endeavor to remedy the perversion of human instincts by extirpating them. The grotesque hypocrisy of prohibition system, from Maine to Kansas, is a sufficient commentary upon their theories. Meantime, the endeavor of wiser men and women to better the condition—the homes, the domestic life, the recreations—of their less-favored brethren go untouched of these fit successors of those to whom Jesus said: "Woe unto you, Scribes and Pharisees, hypocrites, for ye blind heavy burdens upon men's shoulders and grievous to be borne, and ye yourselves will not touch them with the tips of your fingers."

Now, Mr. Chairman, it is facts that talk, not insinuation, not hand clapping, not the wearing of blue ribbons, but the naked, naked facts coming down in the statements that have been made for more than

fifty years and which show that prohibition is the greatest farce, and has brought more curse upon the State of Maine than any other State in this union has suffered through the sale of liquor. Poor Neal Dow said just a week before he died and after having fought for prohibition for fifty years: "My fellow-citizens of Maine, I have fought the wrong battle and I wish I could turn back again."

A BYSTANDER. Have you authority for that?

MR. CRAIN. Yes; it is written down.

A BYSTANDER. Have you authority for that?

MR. CRAIN. I haven't got the time, but you gentlemen who know the literature of the prohibition question understand that it is true.

And, Mr. Chairman, it is the same thing in Kansas; it is the same thing in Iowa. And take that beautiful section of the South, which is historic in all of its antecedents. Some of those States have passed upon this great question, and they have almost procured prohibition. In the State of Kentucky and in the State of Tennessee, and many of the other States—

MR. SIMS. And we are going to stand by it, too.

MR. CRAIN. No you won't; no you won't. You are too young and a man of too much ability not to turn back when you see the error of your way.

MR. SIMS. Ability will not control me, but what is right.

MR. CRAIN. Let me say to you that I have made an investigation into the conditions of the South, and I am willing to stand here with you to controvert the statement, that since prohibition has partially taken hold in the Southern States of this Union, crime and pauperism have not been diminished, but the "blind tiger" has sprung up, that hell hole of the traffic; and with the "blind tiger" has come more and more of the other crimes which bring shame to the faces of all the people.

MR. SIMS. You speak as one who does not know the facts about which you are talking.

MR. CRAIN. My dear friend, I know that is true, because I have investigated it.

MR. SIMS. Your statement as to Tennessee is absolutely untrue. [Applause.]

MR. CRAIN. I do not want to be personal with the gentleman—

MR. SIMS. I know whereof I speak, and I do not think you do.

MR. CRAIN. I have had that investigation made, and the figures do not lie. I have heard it stated by no less a man than one of the leading Democrats who appeared before the Ways and Means Committee, that those blind tigers in the Southern States have brought about the very conditions that I have described.

MR. SIMS. I want to say that Tennessee morals have improved every day since the State closed the saloons; and a few days ago the recent legislature applied the Adams law to every city in the State.

MR. CRAIN. What has been the condition of the blind tigers?

MR. SIMS. Are the people of that State such fools that they do not know their own interests?

MR. CRAIN. My friend has a great deal of feeling on this matter because I speak of conditions in the South.

Mr. SIMS. My feelings are aroused when I see young men going to hell every day in order that some men may make money out of this business. [Great applause.]

Mr. CRAIN. That is all right, but I tell you that the condition of affairs will be changed by the enactment of a prohibition law, and you will have to turn back upon all the traditions of this country for the last one hundred years.

Mr. SIMS. I want to tell you that if your saloon men and whisky makers would not violate the law, the country would get better every day.

Mr. CRAIN. Now, we might go into this question at great length if the time was allowed, but such is not the case, and I will call upon our friend who represents the labor unions of this city, Mr. J. L. Feeney.

STATEMENT OF MR. J. L. FEENEY, REPRESENTING THE CENTRAL LABOR UNION.

Mr. FEENEY. Mr. Chairman and gentlemen, I am chairman of the legislative committee of the Central Labor Union, and I am here representing the Central Labor Union of this city, a body with a membership of 80 local unions of 22,000 people. And I want to say also that the 22,000 men, as you all know, are workmen who generally are fathers of large families, so that we can safely say that we represent one-third of the population of the District of Columbia.

This matter came before our body, and was debated. After a strong debate for and against it, by a unanimous vote we were ordered to appear before this committee and enter a protest against the passage of this bill.

Now, Mr. Chairman, I am not here to give statistics or to take up your time in that way. I want simply to state the views and sentiments of the working people. We believe that they should have that liberty, that if they want to take stimulants they may do so, or they may leave them alone. I claim, from my little knowledge of prohibition, that it does not make any difference, it does not prohibit. No matter what law you pass regarding the saloons, that does not prohibit the sale of drink. I believe that it was a great mistake to abolish the canteen in the Army. I do not know of any law that prohibits a man from drinking; and I wish to say that I am a total abstainer myself, have been throughout my whole life, never having taken a glass of liquor. I have taken considerable pleasure in endeavoring to help men who are addicted to drink; but, Mr. Chairman, because I do not drink, I do not think it is right to prohibit the men from taking a drink when they do not drink to excess. We have people in favor of this bill who no doubt go to excess in drinking coffee, or tea, or in eating, and I do not think that we should prohibit that.

Considering our big population in this city, I do not think there is a city in the country with a more strict excise law, nor where the liquor dealers more closely observe that law. In nearly every city of the country you will find the side door and the other way of getting in. The liquor dealers of this city, so far as my knowledge goes, close their doors tight on Saturday night and do not open them until Monday morning.

Mr. SIMMS. If liquor is so good for the laboring men, why not sell it on Sunday just as well as any other day, and give them an opportunity to get it whenever they want it?

Mr. FEENEY. To be frank, I do not think myself that it would do a bit of harm to sell it on Sunday if it was not abused. There are many people who drink beer with as much moderation as people drink tea and coffee.

Now, in our labor organizations our men do not drink to excess. I am also a member of two fraternal organizations of this city—the fraternal order of the Eagles and the fraternal order of the Elks—and I believe them to be as good as any on the face of the earth. They are not drinkers, and they do not drink to excess. I believe that this bill, if it is passed, will make violators of law. You can not prohibit a man from drinking and from eating. If a weak man falls, it is the duty of the people to try to reform that man.

Mr. CRAIN. Our next speaker will be Mr. Charles W. Darr, representing the Retail Liquor Dealers' Association.

STATEMENT OF MR. CHARLES W. DARR.

Mr. DARR. Mr. Chairman and gentlemen, I do not care to use up but very little of the time that is left.

I am a member of the bar of the District of Columbia, and while I had intended to address myself generally to this proposition, I feel it my duty to reply particularly to Mr. A. E. Shoemaker, who is the attorney for the Anti-Saloon League, and who appears before the excise board to protect the interests of all these ladies and gentlemen before that board.

It is my duty as a member of the bar of the District of Columbia to appear before that board, and I want to say to you that there never was, and there never will be in any community in the United States, a board with so much power, so much discretion, and composed of gentlemen of so high character or reputation as the excise board of the District of Columbia to-day. I have personal knowledge of the two cases referred to by my friends, the one at Washington circle and the one on Nineteenth street. As to the one at Washington circle, I happened to represent the proprietor of that establishment before the excise board, and I want to say to you positively, and without fear of contradiction on the part of anybody, that it is absolutely untrue, without a color of truth, that the majority of the property owners and residents of that street did object to that barroom on the corner. It is true, however, that every year when this man proposed to have a renewal of his license, the Anti-Saloon League and these other kindred societies appeared before the excise board, and, positively without any ground whatever, sought to deprive this man of his license, and not once in all the time that this man was there did they produce a majority of the property owners, and a majority of the signers, against his place.

And I want to say that when he sought to move that door, he did it upon my advice, for this reason: I said to him, "You will be worried by these people because they say that they can smell the beer from your place clear across the avenue, a distance of 120 feet"—and I suggested to him to turn the door around the corner, and then we

would see whether they would object on account of the smell, and leave no opening on the avenue for it to escape. He turned that door around the corner, and there was neither a direct nor a technical violation of the law, or anything else, in changing that door. It was his right under the law. But what is the law? The law in the District of Columbia, Mr. Chairman and gentlemen, is such that it is absolutely unnecessary for this committee or the Congress of the United States to take time to change it. We are governed here, so far as the excise law is concerned, better than any city in the United States. We have local option; that is what we have—absolute local option—in the District of Columbia. No man can open a barroom in a hotel or on the street unless he secures the majority of the bona fide residents and property owners' written consent.

Mr. CAMPBELL. How often does he have to get a renewal?

Mr. DARR. Once a year—that is, he only has to have the signatures once; but it is within the province of the majority of the property owners at the beginning of any license year to protest against it, and if a majority of the property owners—a majority of the residents—protest, he can not get his license, and the law does not give the excise board any discretion in the matter as to the renewal of the license.

Mr. CAMPBELL. To what extent of territory?

Mr. DARR. On the opposite side, and on the street upon which the bar is located.

Mr. SIMS. How far away?

Mr. DARR. One block.

Mr. SIMS. On either side?

Mr. DARR. On both sides.

Mr. SIMS. Is the evil of the saloon confined to one block only?

Mr. DARR. I am speaking now of the law.

Now, I say that the evil of no saloons is worse than the evil of the regular licensed saloon with the conditions and restrictions placed upon it by Congress as under the present law. Further than that, don't you believe for a moment that these signatures of property owners and residents are taken for granted. These signatures are sent first to the assessor of the District of Columbia, who checks up the property owners to see that the owners of the several lots are on that paper as represented. Then it goes to the chief of police, who turns it over to a lieutenant of the precinct, whose duty it is to see that every signer, either a person or a firm, ratifies the signatures before the excise board acts upon it. And does it not seem strange to you, gentlemen, with over 500 saloons in the District of Columbia and with the important questions that must necessarily be presented to the excise board, that my distinguished and learned friend, who devotes most of his time to protesting against licenses in 500 cases since this law has been in effect, that he can point to but two where he says the excise board has not acted properly, and those are the two cases that I have referred to—one that I have explained away, and the other it is shown—I happened to be present at the hearing on the Nineteenth street case. While it was objected to by the property owners, in that case there was not a majority of the property owners protesting against the keeper of the place.

The CHAIRMAN. I would like to ask if you do not think it would be desirable on the part of the excise board to exclude saloons and licenses from that residential part of the city.

Mr. DARR. That is matter upon which they have full discretion and I do not think I ought to be called upon to say what they should do.

The CHAIRMAN. They have discretion as to the location of a saloon if the property owners are unanimous for it.

Mr DARR. If the property owners are against it they have no discretion.

The CHAIRMAN. But if the property owners all sign for it, then they can refuse the license?

Mr. DARR. Certainly; absolutely.

The CHAIRMAN. But the question that is brought to my mind is as to this particular location. Would you, if a member of the board, issue a license for a saloon at that place?

Mr. DARR. Would you let me answer that at length?

The CHAIRMAN. Certainly.

Mr DARR. I would consider, Mr. Chairman and gentlemen, all of the facts in connection with it. First, the keeper of that place is the owner of that property. The keeper of that place was there for twenty-five or thirty years conducting that establishment. You and I, and all of us, may move there and may have bought property with the knowledge that that barroom was there. If we were opposed to that, then we should not have gone where that barroom was. We should not have bought property there with our eyes open and say: "I am coming in. You are a citizen and a taxpayer, but you must go out because I am coming in." I say that is not the American idea of liberty. If the saloonkeeper was there first, and he is obnoxious to me, I ought not to go there expecting that when I go in he shall be driven out.

Mr. TAYLOR. Would you not think that after the people had moved into this block, or into this neighborhood, that the good old American idea of the majority ruling should govern?

Mr. DARR. The law does say that they shall rule; if they get the majority of the signatures, the excise board has no discretion.

Mr. TAYLOR. If everybody decides to let the saloon stay, then the board will let it stay; but if it is decided by the majority of the citizens there that it shall not stay, then it can not continue.

Mr. DARR. As I understand that case there was not a majority of the property owners against it.

The CHAIRMAN. I will say that Miss Phoebe W. Couzins now desires to be heard.

STATEMENT OF MISS PHOEBE W. COUZINS.

Miss COUZINS. Mr. Chairmen and gentlemen of the committee, having met with a serious accident which prevents me from walking, I am sorry that I am obliged to sit in your presence.

Before I enter upon an extended statement concerning this question, let me say to you that I think my thirty years experience on all questions that are before you is sufficient reputation that I come here without any ulterior purposes and hired by no organization. Mr. Babcock will bear me out in the statement that when I heard of this meeting to be held here I addressed him a note asking to be heard on the merits of the question alone. When the Personal Liberty League asked me to say a few words at their meeting last Sunday night I

very gladly went to add my word to theirs, although my health is, as you know, somewhat precarious.

I have come in contact with people in public life and I have seen the working of prohibition in the State of Kansas. I come here to say a few words this morning in reference to my observations there.

Three years ago I chanced to be in the Capitol of the United States and wandered into the room of the Committee on Judiciary. There was under consideration there the Hepburn-Dolliver bill and arguments were being made against the control by the Federal Government of the liquor traffic in the States. I heard there the argument of Mr. Dinwiddie, legislative superintendent of the Anti-Saloon League of America, in which he said that three States, Maine, Kansas, and North Dakota, had absolute prohibition and that liquor was only sold in the drug stores for pharmaceutical purposes.

It so chanced that that summer I went to Kansas for the benefit of my health and remained there one whole year. I observed the working of this prohibition law and I observed it from a perfectly impersonal standpoint. As many of you know, I was for many years an advocate of prohibition. My voice has been heard in this Capitol for prohibition many years ago. But after a long-continued observation I find that it is utterly impracticable in the States and in the larger cities. Possibly it may be practicable in the smaller villages of the States, but as a proposition in the larger cities it is a complete failure, as Mr. Crain stated.

You have omitted President Eliot's name from the body of distinguished men who have investigated this question of prohibition. Mr. Eliot, Seth Low, and many other distinguished men who have investigated prohibition say that it is utterly impossible.

In reference to this bill I would like to say, before speaking of my experience in the State of Kansas, that I notice section 6 says that if this bill is passed as a law by your committee—but first I want to say also, in protest against my own sex, that every statement that has been made in contradiction of these gentlemen who represent the churches and other like organizations has been greeted with hisses and with condemnatory applause. General Butler once stated that there were but two animals that hissed, one a goose and the other a snake. I am sorry that my own sex has not sufficient knowledge of the dignity of this hearing to prevent them from giving way to that very contemptible act of hissing a speaker who does not agree with their own views. We are hearing persons whose views are different, and all views have a right to be treated respectfully.

Now, in regard to this section 6. It says:

That this act shall be in lieu of and as a substitute for all existing laws and regulations in the District of Columbia in relation to the sale, manufacture, furnishing, or giving away of distilled and fermented liquors in said District, and all laws, or parts of laws, inconsistent with this act be, and they are hereby, repealed.

I would like to ask, Mr. Chairman, if this repeals the constitutional amendment and the interstate commerce law which authorizes and permits as a legal trade the manufacture of wine, of beer, and all alcoholic liquors, and recognizes them as an article of our commerce and trade. Will the Chairman please tell me if this overthrows that law, or will have the effect of overthrowing it; or will any member

of the committee tell me that? This bill says that it will stop the sale, manufacture, furnishing, or giving away of distilled and fermented liquors in the District, and I wish to inquire if that affects the Constitution of the United States which recognizes the manufacture and sale of wine, beer, and all alcoholic liquors legitimately permitted in trade and commerce.

The CHAIRMAN. I think, perhaps, some of the lawyers on the committee could answer that question better than I.

Miss COUZINS. Can Congress violate the Constitution of the United States in behalf of the District of Columbia, would be the question before you.

Mr. TAYLOR. Your idea is as to whether or not the statute would change the Constitution?

Miss COUZINS. Yes.

Mr. TAYLOR. That is impossible. The Constitution is the organic law of the land.

Miss COUZINS. Very well, then, I see no force in this bill; if you can not run contrary to the Constitution of the United States I see no force in the bill.

Mr. SIMS. The bill therefore being void you would have no objection to it?

Miss COUZINS. I have no objection to it in any way, because you can not pass it.

Mr. SIMS. Oh, yes, we can pass an unconstitutional measure, but it can not be enforced.

Miss COUZINS. There is another point that I wish to make before I speak of Kansas.

This is a cosmopolitan city. You gentlemen are here as the representatives not only of a great nation, but you invite all the nations of the earth to come here as your guests, and as representatives of their governments. Most of the European countries recognize the right of every individual to a glass of wine, of beer, or of alcoholic liquor. I ask you, gentlemen, if you are prepared to insult all of our foreign guests by closing up every avenue toward the purchase of a bottle of beer or of a glass of wine in direct contravention of all their customs and laws which are entitled to our respect and recognition while they are our guests?

Now, in reference to Iowa, you have had before Congress the Hepburn-Dolliver bill, and after the last session of Congress Mr. Dolliver appeared in Kansas City while I was there, and in an address on "Public virtue" said:

In my judgment we are overestimating the value of legislation as a cure for the moral defects of a community. The family itself should shoulder the burden of moral affairs. They acquit themselves of responsibility by passing an act on the subject. For over twenty-five years I fully believed that the way to stop drunkenness was to amend the constitution of Iowa. I have concluded that what is needed is an amendment to the constitution of the citizen, and have abandoned the idea of making men sober by law.

That is Mr. Dolliver's statement after he had advocated the passage of the Hepburn-Dolliver bill.

Now, gentlemen, as to what I observed in Kansas. While I was there I read this in the Kansas City Star. It relates to what is called the "pharmaceutical humbug," and its author is Thomas Benton

Murdock, a well-known writer, and the editor of the *Wichita News*. He says:

From the Missouri border to the western confines of Kansas, along every line of railway on both sides of the track, in the sunflower patches along the right of way, in the haymow of every livery stable in every town, in every alley and back stairway, in the top drawer of every bureau of every hotel, in the cellarway of many homes, can be found the Topeka drug-store bottle. I have seen the 4-ounce, the pint, or half-pint bottle. It is the same shape, the same greasy, unlovely appearing piece of glassware, which suggests the Topeka drug-store stuff—the cheapest in the land.

Mr. CAMPBELL. Thomas Benton Murdock is editor of the *Emporia Republican*.

Miss COUZINS. I beg pardon, I understand that he was editor of the *Wichita News*.

Mr. SIMS. We are much more interested in the truth of the statement than the editor.

Miss COUZINS. Mr. Murdock, with his characteristic intuition, presents the real gist of the Kansas liquor question where prohibition encourages not only evasion and deceit, but what is even worse, a depraved taste. In a little town of 800 inhabitants I have seen porters and maids carry out bottles by the hundreds from rooms and stairways where they have been thrown. Little boys follow men into the drug stores with corkscrews, begging the gift of a drink for the privilege of uncorking the bottles, to obtain which bottles these men have sworn falsely, as having all the diseases of the calendar. The schools are invaded with this demon of falsity, and boys were expelled during my stay there for drunkenness and inebriety, a condition unknown in towns and cities where the license system prevails, and where children are protected by the law from illicit drinking. The solemnity of an oath is entirely ignored and the foundation stone of truth in character is rapidly disintegrating under such conditions. I wish to say that the young men who are quartered there and who are sent to buy these bottles are held under the law to swear that every bottle which they purchase for these gentlemen represents a disease. I met one evening a young man from the hotel where I was stopping with seven bottles, and I asked him where he got them and how he got them. He laughingly said that he had sworn that every one of the seven bottles represented a disease, one for Bright's disease, one for appendicitis, another one for liver complaint, and so on. Thus you see that perjury and lying is encouraged by such a system of prohibition throughout the State of Kansas.

It is not possible for me, in the short time that is left, to tell you of all the evils which I saw out there where the "joint," the "speakeasy," and the "bootleggers" flourish. I have seen more drunkenness in that little town than I have ever saw in the State of Missouri where I came from and where I was born, more than I ever saw in my own native State.

I am here to represent the German-American Alliance. While in Kansas the German-American Alliance was to hold a meeting in St. Louis, and I offered my services and went down to speak for that organization. But I want to say that the German-American Alliance represents 12,000,000 people. They are our best citizens in the State of Missouri, and we are greatly indebted to them for the stand they took in the hour of peril of 1861. They are law-abiding, they are

temperate, they observe everything that is good in religious life and that is necessary in that life. But they also demand their beer, and they demand their beer on Sunday. They feel that they have a right to it.

On the 6th of October, 1904, at the World's Fair, in St. Louis, a German day was celebrated to mark the contribution to America's greatness and development by that splendid body of citizens, the German-American, since the landing of the first colony, and this is what the *Globe-Democrat*, of St. Louis, said:

That the German ingredient of the American population, besides being the most numerous of all the foreign elements of the country's inhabitants, was also one of the most valuable; Germany taking the first place, after Pastorius's settlement, among all the countries of the world in furnishing immigrants to the United States. In peace and war the Germans, whether native or foreign born, have ever been the most intelligent, order loving, and patriotic of citizens, always in the front rank on the line of march of expansion, conquering and civilizing the wilderness from ocean to ocean.

With their rich inheritance of blood and brain and brawn from that trio of ancestral races, the Vikings, the Teutons, and Germanic tribes "who knew no fear, and feared no death" while planting civilization in their march of twenty centuries through European morass and impenetrable forest, they also were endowed with a like spirit of that incomparable ancestry who, when the day's toil was done, gathered about the wassail bowl, the drinking horn, or loving cup, to give the hand of fellowship and toast in loving kindness, health, and happiness to all.

In art, education, literature, poetry, drama, music, and scientific investigations, the German race is to the fore.

At the World's Fair, of 1904, in St. Louis, out of the 2,000 medals and premiums offered, the Germans were accorded nearly 1,500, while to the genius of a young German-American was given the honor of the best formula for them all—gold, silver, bronze, and the Roosevelt. The German-American deserves to be recognized as the very bone and sinew of this country, for they are ready to defend it in every hour of peril; and you have no right to say, as we have heard here in this meeting and as I have heard repeatedly since I have become an advocate of antiprohibition, that they shall not drink wine of they so choose; that they shall not take a glass of beer if they like. They resist all the evils of inebriety and the disgraceful habits of those who drink to excess. I know what the German-Americans are from experience. My father for forty years was an official of the city of St. Louis, and from 1857 to 1865, or during the war time, was chief of police. Efforts were made time and time again to bring about prohibition, but I can remember that he emphatically condemned them all, saying that it was utterly impossible in a large city of cosmopolitan tendencies to enforce laws of that kind.

Now I have only one more word to say in conclusion, and that is a reference to one of the addresses of Miss Frances Willard, which I heard before her death. She stated that it was poverty that created intemperance, and not intemperance poverty.

Mr. Chairman, I have wondered what all of these 17 organizations of churches and societies, whose representatives have spoken here this morning, have been doing in the District of Columbia to merit the condemnation of the President's closest friend, Mr. Jacob Riis, who

says that you have in the city of Washington the worst slum districts in the entire Nation. What have all of these churches and organizations been doing that you present such a front to the world as that? And more than that, I disclaim that the thousands who are in the insane asylums are the products of the saloon alone. Why, gentlemen, every day since I have been here, for two years or more, they have been sending to St. Elizabeth's your young men who have been sent out to the Philippine Islands to fight in advocacy of your own unconstitutional action; and that asylum is full of young men whose lives have been destroyed by that act of this Government in the Philippine Islands. Two years ago there was a ship came in from the Philippine Islands which had the bodies of over 200 young men on board. They were buried at Arlington, alongside of the soldiers there. But they were men who died not in defense of their country, but in violation of the great principles of human liberty. They invaded the Philippine Islands and destroyed many of their own citizens on the island of Luzon in two years, and this act not only destroyed the young men who went out there, but the morals and physical and mental condition of thousands. So that I deny that upon the shoulders of those who drink beer and wine rests the responsibility for all the evils that were recited by Mr. Webber.

I thank you.

MR. CRAIN. Mr. Chairman, there are a number of other gentlemen here representing different organizations and parties interested in this measure in the District, but of course the time is up and I presume the meeting is to be brought to a close.

MR. SIMS. I will be glad to give these gentlemen all the time they want, because it is a matter that we want to know all we can about.

THE CHAIRMAN. Mr. Webber, of course you are aware that this committee has no authority to sit after 12 o'clock, although, perhaps, we sometimes infringe upon the rules of the House. But I would suggest that if you want more time to discuss this question it would be well to take it now, and if you or Mr. Crain desire to be heard further you may continue for twenty minutes, if that is satisfactory.

MR. SIMS. Yes, ten minutes on each side.

MR. CRAIN. I will call upon Mr. J. C. Leonard, president of the Liquor Dealers' Association.

STATEMENT OF J. C. LEONARD, PRESIDENT OF THE LIQUOR DEALERS' ASSOCIATION.

MR. LEONARD. Mr. Chairman, in the few minutes granted to me I simply want to answer the figures that were brought out by Mr. Webber. He stated in regard to maintaining the jail, the workhouse, and the insane asylum, that the jail costs you \$90,365 a year, the workhouse over \$50,000, your asylum over \$250,000, your police force over \$800,000, and your courts nearly \$60,000 a year. Against this you have received less than \$500,000 in license fees.

Now, I do not know whether Mr. Webber thinks that we could do away with the jails, the workhouse, and the police force if we passed this bill, and if prohibition became a law in the District of Columbia, or not. Perhaps those who advocate this bill think that, but I do not.

MR. WEBBER. I have not claimed it.

MR. LEONARD. I want to produce figures to show that he is mistaken in his figures.

There is nearly \$6,000,000 invested in the liquor traffic in the District of Columbia. There are 670 persons, firms, and corporations engaged in this business, and they occupy 650 places of business that will be vacated if this prohibition law is enacted. There are 2,500 wage-earners employed directly in this traffic in the District of Columbia, and they receive in wages nearly \$1,625,000. The license tax paid annually by this business amounts to \$465,000, and not \$422,000. The persons engaged in this business annually pay on realty and in personal taxes over \$200,000. The internal revenue and customs taxes pay on this traffic annually over \$1,500,000 in the District, a tax of \$1 on every barrel of beer and \$1.10 on every gallon of whisky.

Mr. POT. How much fermented liquor do you calculate is sold in the city of Washington every year?

Mr. LEONARD. I say that this traffic annually pays \$1,500,000 in the District.

Mr. POT. But I want to know if you have made an estimate of the amount of liquor?

Mr. LEONARD. I have not the figures here, but from that estimate I have drawn the conclusion that if \$1,500,000 is paid in internal revenue and customs taxes—

Mr. SIMS. But how much is consumed?

Mr. POT. How much do you estimate to be the value of all the liquors of every character sold in the city of Washington annually?

Mr. LEONARD. I am willing to take the figures of Mr. Webber on that. He said it was over \$2,000,000. I think that is the only thing he has underestimated.

Mr. SIMS. What do you think the real amount is; what is your view?

Mr. LEONARD. My view is that if there is a dollar paid on every barrel of beer into the internal revenue, and \$1.10 on every gallon of whisky bought by the liquor dealers, that it amounts to \$1,500,000 that is paid into—

Mr. SIMS. But what is the value of all that?

Mr. LEONARD. I haven't got that, but I can furnish it to the committee.

Mr. CRAIN. How many barrels of beer are sold in the District?

Mr. LEONARD. All this can be learned from the internal revenue collector's office. They can tell you every dollar that is received upon every barrel of beer.

Mr. SIMS. But what we want to know is what is it costing the people of the District of Columbia; what is the drink bill?

Mr. LEONARD. Well, there are all kinds of wines—I brought over those figures, and I am telling you the conclusions that I have drawn from them.

Mr. GREENE. You have the amount of taxes; now, how much do the people buy during the year?

Mr. SIMS. Yes; the value of the liquor consumed here?

The CHAIRMAN. In other words, what are the receipts of all the bars in the District of Columbia, that of the wholesalers and those who sell whisky by the bottle; what are the total receipts from the sales?

Mr. LEONARD. Over \$3,000,000, I believe.

Mr. CRAIN. I might say, if you really want information, that it will be impossible to make a calculation based upon the revenue from the sale of whisky and wines in the several hotels and saloons and other places in this city for the reason that, as I understand it, there are no statistics taken of the amount of whisky that is sold in the several saloons. The only thing that you can go upon is the amount of internal-revenue tax that is paid into the District for beer and for whisky. Of course, there are thousands of barrels of whisky that are brought into this District and sold in the saloons.

Mr. SIMS. Do you not think that at least \$5,000,000 would be a reasonable estimate of the entire drink bill in the District?

Mr. CRAIN. I have never thought of that, and I would not say. If, however, a man was spending his own money I do not know that it would be anybody else's business.

Mr. SIMS. We just want to know how much "personal liberty" in Washington costs. [Laughter.]

Mr. LEONARD. One-half of the taxes in the District of Columbia is paid by the National Government; that is, it is appropriated by the National Government, and the other is raised by the property owners and tax payers of the District. One-half of that is \$6,000,000; it is \$12,000,000 in all. I believe that one-third of the entire revenue of the United States is derived from this traffic. It is two hundred and odd million dollars. If they pay one-third of that amount into the Treasury of the United States, of that \$6,000,000 that goes to the District government, that certainly must be \$2,000,000 more that you must add to the \$465,000, because the National Government appropriates \$6,000,000, and if one-third of the entire revenue of the Government, or \$200,000,000 is derived from the liquor traffic, certainly one-third of the \$6,000,000 that goes to the District of Columbia, which is \$2,000,000, is paid into the treasury of the District of Columbia.

The CHAIRMAN. As I understand this proposition before the committee, it is one of principle, and not one of dollars and cents. The question for the committee to consider is whether prohibition is wiser, or whether license is the wiser proposition. Do you think that the question of dollars and cents ought to enter into it at all?

Mr. LEONARD. I simply wanted to answer Mr. Webber's figures. He quoted figures, and I thought we had a right to do the same.

Now, as to this question of the whole people going to the bow wows on account of the drink habit; it is a very foolish one, to my mind. You can walk the streets of Washington and you will see 1,000 sober men—yes, 2,000—where you will see a man under the influence of drink; and when you talk about the boys going to perdition I think it is a libel against the boys.

Mr. SIMS. Do you think that \$5,000,000 worth of intoxicants will not make anybody drunk?

Mr. LEONARD. I live in a community, and I am a saloon keeper in that community. The other day I met a lady, a good friend of mine, who has deplored my being in this business. She talked about the boys. I said: "Mistress, can you name one boy who has been ruined by my saloon in the eleven years that I have been in the business? Name to me some of these boys that you talk about and that have been ruined." She could not name one. And three days afterwards

she came and presented four names of boys—in twenty-five years. So that this thing is overstated. We are not going to the devil on account of the drink habit, and our asylums are not filled from that cause. I have talked with men who are physicians in the insane asylum, and I have a report here showing that in all the cases during the year—602 admissions during the year—for the eleven different diseases caused by alcoholism, there were only 26 admitted out of the 602; and that included those coming from the Philippines, from the army posts, from the soldiers' homes, and all those places included. Only 26 diseases could be traced in any way to alcoholism. It costs there \$220 to maintain a patient, so that would be about \$5,000 a year, instead of \$250,000, as Mr. Webber stated. So that we are not going to the devil.

Owing to interruptions and the brief time allotted me, Mr. Chairman, I would ask that the statement which I had prepared and intended to read be put into the record as a part of my remarks.

I represent the retail liquor dealers of the District of Columbia.

During a meeting held in one of the theaters in this city last Sunday evening Mr. Webber, the author of the bill now being considered by this committee, stated that when he came to Congress he found the District of Columbia without an excise law; that is, the so-called excise law now in force permitted liquor to be sold at all times to anybody every one of the three hundred and sixty-five days in the year.

The Congressional Directory shows that Mr. Webber came to Congress two years ago, being victorious over his Prohibitionist opponent. The present excise law was enacted over thirteen years ago, and it prohibits the sale of liquor on Sunday. I challenge any person to name one saloon that is open or does business on Sunday, either through its front, side, or back door.

During his remarks Mr. Webber said:

I will show you how much more it costs to support your jail, workhouse, police, insane asylum, and courts, and compare it with what you receive in revenue from saloon keepers. Your jail costs you \$90,000 a year, the workhouse \$50,000, your courts \$60,000, your police force \$800,000, and the hospital for the insane \$250,000, the drink habit being responsible for at least 90 per cent of these expenditures. Against this you receive less than \$500,000 revenue from the saloon keepers.

I desire to ask Mr. Webber if he really thinks we will be able to reduce our expenditures 90 per cent if his bill becomes a law and we have prohibition in the District of Columbia? Does he think we will be able to get along with 100 policemen? Does he really think that crime will be reduced so that there will be little use for jails, a workhouse, or an insane asylum? His figures on the insane will not bear verification. He states it costs \$250,000 a year to care for the insane by reason of the drink habit or alcoholism. There were admitted to the insane asylum during the last year 601 patients. Only 26 of those patients came under the classification of being due in any way to alcoholic excesses or abuse of alcohol. The cost per patient is \$220 per annum. The cost of these 26 patients was therefore only \$5,720. There is quite a difference between this sum and his \$250,000. How will his other figures bear comparison with facts based upon official reports? Has he not made deductions from a biased standpoint?

Mr. Chairman, those advocating the passage of this bill would have you believe that everything is going to the devil on account of what they call the drink habit. I believe, and I base my belief upon experience, observation, and comparing notes with my fellow-saloon-keepers, that 85 per cent of the male adults in the District of Columbia drink either malt, vinous, or alcoholic liquors; that at least 50,000 men drink whenever they feel like it, and that there are but few who drink to excess—certainly not over 5 per cent; then why should 95 per cent deprive themselves of their pleasures, who injure no one, but simply gratify the appetite bestowed upon them by nature without evil consequences to themselves or others—these must be sternly disciplined, be deprived of their convivial and innocent relaxations so that a few weaklings may be protected against temptations which they do not try to resist. The world must be turned gray because the color of the rose affects a few degenerates, unhappily; because a corporal's guard disport themselves indecently; every jocund thing forbidden lest Jones or Smith abuse his opportunity. Thus we have a war of the doctrinaires and the busybodies against those who love their private liberties and are capable of enjoying themselves in their own way and within the bounds of reason.

Now, Mr. Chairman, I wish to present a few figures. There is nearly \$6,000,000 capital invested in the liquor business in the District of Columbia which would be wiped out by this bill. There are 670 persons or firms engaged in this business. This measure, if it should be made a law, would drive them out of business, and would leave vacant 670 stores now occupied and paying a large rental. There are over 2,500 wageworkers employed in the manufacture and sale of liquors in the District of Columbia. This bill would deprive them of work and wages to the amount of \$1,500,000 annually. The estimated amount spent in the different channels of trade by those directly engaged in this business is \$2,000,000 annually. This traffic pays into the National Treasury, through the Internal Revenue Bureau, upward of \$800,000. It pays a license tax of \$465,000, and real, personal, and other taxes to the amount of \$175,000. In round numbers the liquor traffic in the District of Columbia contributes to the revenues of the National and District governments \$1,440,000 annually. So that this pays an amount sufficient to not only pay 90 per cent, but the whole amount expended for jail, workhouse, courts, police force, and insane asylum and have \$190,000 left over.

Now, Mr. Webber talks about the enormous drink bill of the District of Columbia; he states that the people pay about \$2,000,000 for liquor every year; that is the one thing he underestimates; they spend at least \$3,000,000, which means a per capita of about \$9.30 of the population, or nearly 2½ cents per day; or, say that is divided up among the 50,000 who drink, it would mean that those 50,000 pay about 16½ cents a day for their drinks. Now, I would like to know what business it is of myself, Mr. Webber, or any other man, how Smith, the carpenter, or Jones, the machinist, Thompson, the clerk, or Harris, the member of Congress, spends the money he has earned so long as he does not interfere with the rights of others.

This proposition seems to me ridiculous, that because a few spend more than they ought for an article, the right of the many to spend their money for that article is questioned.

Mr. Chairman and gentlemen of the committee, I thank you.

STATEMENT OF MR. HUGH F. HARVEY.

Mr. HARVEY. I would like to say, Mr. Chairman, that we have a men's petition here, business men and all over 21 years of age, a petition that has been signed against this bill. We would like to have this filed and made a part of this hearing. It is signed by men over 21 years of age, no children, and by no one in cradles, but everybody whose name is on this petition is a recognized business or a working man in this community. I want to ask you to consider these names and put them in the hearings.

The headings of each of the petitions referred to is as follows:

MEMORIAL TO CONGRESS.*To the Senate and House of Representatives:*

The undersigned wish to enter a respectful but positive protest against the enactment of any prohibition law in the District of Columbia. It is needless to assure members of Congress who are honestly awake to the situation that where prohibition has been attempted it has been a practical failure. The sale of intoxicating liquors may be considered an evil, but practical men know that if it is an evil, it is one that may be regulated in some degree, but one that can not be entirely wiped out.

In Washington especially, with its cosmopolitan population, white and colored, prohibition would be the most pitiful sort of a farce. You who know the situation know that such a law would not only cause illicit groggeries to flourish in every section of the city, but would convert half of the low-class population into walking "speak easies," supplying the worst sort of liquor at the highest possible prices to the other half of the lower classes.

Of the taxes paid in Washington, \$1,500,000 come from the element that does not desire the farce of prohibition foisted on the city. Two-thirds of the citizens are unalterably opposed to any experiments in prohibition at the expense of the city. They have seen such experiments tried elsewhere and seen them fail utterly. And their failure is always of a sort to leave the moral condition of the population as well as the material welfare of the city at a much lower ebb than before such legislation was tried.

STATEMENT OF JERE F. MCCARTHY.

Mr. JERE F. MCCARTHY. As the representative of the bartenders of this town I would like to file a resolution against the passage of this bill. I want to say that we support 2,300 people, and we have an organization of 700 members. We are pretty well satisfied with the conditions here, and we want to file our protest against the passage of this bill.

I also have here the Central Labor Union's protest against the enforcement of this bill, I being one of the legislative committee of that union, a union with 22,000 representatives of organized labor whom the good people seem to be apprehensive about. This labor union has unanimously indorsed this resolution, and they represent one-third of the people of the District of Columbia.

The resolutions referred to are as follows:

[Bar Tender's International League, affiliated with the American Federation of Labor, headquarters 905 E street, NW. Washington, D. C.]

FEBRUARY 3, 1907.

At the regular meeting of the Bar Tender's League of this city held on the above date, the following resolution was unanimously adopted and ordered to be presented to the honorable members of the Committee on the District of Columbia at the hearing on the Webber bill February 14, 1907, by the following members of the league: Jere F. McCarthy, Jas. McGilton, T. E. Dalley, B. V. Walz, and H. D. Hayden:

RESOLUTION.

Whereas there is pending before the Congress of the United States a bill known as H. R. 6016, introduced by the Hon. A. R. Webber, Congressman from Ohio, which proposes "to prohibit the manufacture and sale of intoxicating liquors in the District of Columbia," and

Whereas if this bill is enacted into law it will deprive the 700 members of the Bar Tender's League of this city (who are now affiliated with the Central Labor Union of Washington, D. C., the Hotel and Restaurant Employees' International Alliance, and the Bartenders' International League of America, and the American Federation of Labor) from earning a livelihood for themselves and families, at their particular craft, trade, or calling: Therefore be it

Resolved, That we earnestly and emphatically, but respectfully, enter our protest against this bill, which is so drastic in its nature that it would deprive our membership of employment in a business that has been legalized in the capital city by the Government for over one hundred years.

[SEAL.]

JAMES H. MCGILTON, *President*.

JERE F. MCCARTHY, *Secretary*.

Mr. POU. Do you mean to say that the Central Labor Union of this city is unanimously opposed to this bill, or has unanimously indorsed that action?

Mr. MCCARTHY. Oppose the bill; yes.

A VOICE. It isn't true.

ADDITIONAL STATEMENT OF MR. AMOS R. WEBBER.

Mr. WEBBER. Mr. Chairman and gentlemen of the committee, if the fate of this bill depends upon the opinions of wise men whose names have been quoted here, then it is a question between Dr. Lyman Abbott and Bishop Potter, of notoriety, on one side, and William E. Gladstone and Abraham Lincoln on the other. [Great applause.]

If this question in your committee room is to be determined, gentlemen of the committee, by the witnesses who are present in person and absent by their representatives, then on the one side you have the brewers and distillers and their paid attorney, the attorney of the wholesale liquor dealers, the representative of the retail liquor dealers, the representative of the bartenders, and the good lady whom I would do no injustice to whatever, whose conversion on this great question against us has been stated; and over against that you have all of the Christain manhood and womanhood, the temperance organizations, the Sunday schools, the Christian Endeavors, the Epworth Leagues, and all of the temperance organizations of this city asking you, gentlemen, to do what is right. [Applause and cries of "Amen."]

That is the situation. My friend over here [referring to Mr. Crain]—I am a friend of every human being on earth, but I am trying to get him out of this business and save him [applause]. This other gentleman, who stated that I got one statement right, or underestimated the sum, when I suggested that the drink bill of this District is \$2,500,000 a year—according to his statement we learn it is twice that. I will say here that if I am wrong in my figures they should be corrected. I took them from the letters from Mr. Macfarland, and those referring to the insane asylum, the jail, and the workhouse, and you can read them—but he has raised this drink bill in the District far beyond any mistake that was made in those expert figures, if such mistake were made.

Now we are going out of this committee room, and it is for you eighteen men from eighteen different districts of this country to say

that, in a community of 300,000 people who are powerless to vote upon and determine this question, whether or not these organizations, these churches, these children's schools, and everybody except the liquor interests, shall have their demands respected. We ask by all that is humane and all that is right that this bill be reported to the floor of the House, and let the House assume the responsibility. [Applause.]

Mr. CRAIN. I would like to ask Mr. Webber, because I am confident that the committee desires to know the facts, if he will in all frankness answer one question. Will he be kind enough to state to the committee how the amount of liquor sold in the State of Maine under prohibition laws compares with the amount of liquor sold in other States of about the same population and character where there are no prohibition laws. I would like to ask him also to answer that same question with reference to Kansas, with this added: Whether or not the sale of whisky has decreased in the State of Kansas since the prohibition law was passed?

Mr. WEBBER. You will have to call upon somebody else to answer in regard to Kansas; I don't know.

A VOICE. Mr. Webber, here is the information in regard to both States.

Mr. WEBBER. Very well; I will read this: "Prohibition Maine has less than one-fifth of the population of either Ohio or Illinois, but Maine has a half more savings bank deposits than Ohio, and more than twice as much as Illinois.

Statistics show that prohibition in Kansas is an annual saving to the people of \$6,000,000. Forty-four out of 105 counties are without a pauper; and in 37 counties there is not a single occupant in the jail." [Great applause.]

You can draw your own conclusions from either. Why, gentlemen, think of it! These gentlemen stand up here and admit that this bill, if it becomes a law, will lessen the sale of intoxicating liquors in this District; and the representative of the Central Labor Union, who seems to be paradoxical in his position by representing a temperance organization and belonging to it, and by taking a pledge from boyhood to be a total abstainer, and yet is willing to let these places run to the end that the boys may drink so that he may get them to sign the pledge later on. If it be true that prohibition will lessen drinking in this city—and it will, because if it would not, these representatives of distillers and those who are in the business for the money they can get out of it would not be here, and because if they can sell more beer and whisky here with prohibition than without prohibition they would not be represented here.

Mr. POT. You have alluded to the fact that the people of the District can not vote. Would it be satisfactory to you to pass a bill submitting this question to the people of the District?

Mr. WEBBER. Absolutely; but I do not want that to come in now and take precedence if the whole thing is to be defeated. We come here for one purpose. I am endeavoring, in my humble way, as a Member of Congress, to represent these people. I believe they want to get rid of these saloons, and if you can not believe those who have lived here all these years, all these ministers, all these representatives of Christian organizations—they are good people—if you can not believe them, how could you believe though One who arose from the

dead? Here are paid attorneys. I have never questioned their right to appear here, I only question their business. I am trying in my humble way to get these men out of their business. They are wronging their own families; they are wronging their own neighbors. This is the greatest question you have ever had in your committee room since you sat here, and what are you going to do with it? [Applause.]

Mr. CAMPBELL. Have you ever made a personal investigation of the effect of prohibition in a prohibition State?

Mr. WEBBER. Yes, sir.

Mr. CAMPBELL. In what State?

Mr. WEBBER. I will take Ohio. We have local prohibition scattered all over that State.

Mr. CAMPBELL. I mean a State that has absolute prohibition.

Mr. WEBBER. I have never been myself personally in such a State to investigate the proposition.

ADDITIONAL STATEMENT OF MR. ROBERT CRAIN.

Mr. CRAIN. I know that Mr. Webber will permit this. I desire that it go in the record so that there will be no misunderstanding. We do not admit for one instant that there will be less liquor sold in this District, so far as whisky is concerned, if this prohibitory law shall pass and be enforced, because the facts show that in the State of Maine and in the State of Kansas, and in other prohibitory districts, that the sale of liquor has never decreased so far as whisky is concerned. In the State of Maine for the first fifty years that the Dow law was in force, the records show that the internal-revenue department at Washington issued just as many tax receipts as it ever had before. The same thing is true as to the State of Kansas, but I have not the figures with me. I will get them and send them to the chairman of this committee, and they will show also that in the State of Tennessee there are thousands of "blind tigers" paying a revenue tax to the National Government.

Mr. SIMS. Speaking of Tennessee, I want to say this, that men in the liquor business usually do not comply with any kind of law; they do not want to pay taxes and they do not want any kind of restrictions. Of course, there were "blind tigers" before we had prohibition. I understood your statement to be that we were not worse then than now. So far as Tennessee is concerned, that I challenge absolutely, because I have lived there all my life.

Mr. CRAIN. Then they are just beginning, in Tennessee, to reach the millennium, to which my distinguished friend has referred. This law has just been passed, and it has never been tried, this last law.

Mr. SIMS. That only reaches the dark spots.

Mr. CRAIN. I desire to say that these "speakeasies" are all through the South, so I have learned; learned from your friends, from members of this House from your section of the country. I do not care to give their names, but distinguished gentlemen from several of the Southern States who occupy the same relation to this legislation as you, Mr. Sims, occupy, because you represent the wishes of your people—those gentlemen say that the conditions are most deplorable.

Mr. SIMS. I represent the wishes of my people and the dictates of my own heart.

Mr. CRAIN. I have never questioned that.

Mr. SIMS. Now, as to Tennessee. When whisky was sold without limit in the small villages, in the county seats of the counties of Tennessee, upon a court day, when the people were in from the country, and in the evening you would see perhaps 50 young men maudlin drunk, and violating the law by carrying pistols. To-day if you go into those same counties, and under the same conditions, you can not find one. Do you tell me that it has not benefited those people?

The CHAIRMAN. I think there should be one thing made clear, and I do not think it has been made clear by Mr. Webber, although I am sure he did not intend to misrepresent it. I would like you to state again, Mr. Crain, to the committee what organization you represent.

Mr. CRAIN. I represent the United States Brewers' Association, an organization which comprises all the brewers in this country. I am perfectly willing to say, and leave it to the intelligent consideration of this committee of Congress, that if this bill is enacted into law the sale of beer in this District will greatly decrease, because beer is not sold to any extent at all in the prohibition States of this Union.

The CHAIRMAN. The statement was made that you represented the brewers and distillers. I want to say to the committee that the chairman of the committee and the committee itself has had no communications from the distilling or whisky interests in opposition to the enactment of the Webber bill.

Mr. SIMS. The sellers of beer do not violate the law as we claim the whisky men do?

Mr. CRAIN. I did not say that; but I will say this, Mr. Sims, that on account of the physical size of the packages in which beer is sold it is not sold to any great extent in prohibition districts. That is a fact.

Now, gentlemen, there is only another thing that I would like to go into this record. This question, of course, is as old as the country and as broad as the country, and it is one of the most important questions that ever confronted the people of this country. But I do say that this question has been investigated thoroughly by men of capacity and integrity, and that this committee ought at least to pay some attention to the conclusions that those men have reached. Every man on this committee has heard of Seth Low. Everyone has heard of Doctor Eliot, and everyone has heard of James T. Carter, the leader of the New York bar, and probably one of the most distinguished men in this country. In the investigation I spoke of, extending over five years, Mr. Sims, those gentlemen, acting with 50 other gentlemen of like standing in this country, investigated in every State in this Union, from the beginning of this Union, the liquor question in all its aspects. They have investigated it also in other countries of the world, and they reached the same conclusion that Dr. Lyman Abbott reached, namely, that our friends of the prohibition cause were mistaken in the methods by which they were endeavoring to bring about this good result for which they have so earnestly labored.

Mr. SIMS. My actual personal observation of the success of the law for twenty-five years enables me to know that it is and has been a success in Tennessee, and I do not think Tennessee is better than the average State of the country.

STATEMENT OF MR. WILLIAM V. MAHONEY.

Mr. MAHONEY. Mr. Chairman and gentlemen of the committee, I want to call the attention of the committee for one moment to a very pertinent fact, and that is, I do not know of any person representing the liquor side of the question to-day who is not representing his job, for which he is paid. The temperance people, however, on the other hand, are here representing the moral side of the question, and they are rendering their service and exerting their influence for nothing. I am a business man on Capitol Hill, in the southeast, and my payroll amounts to several thousand dollars per annum, and the time I devote to this cause is time spent at the sacrifice of my business.

Now, I want to correct a reference that was made to Miss Frances E. Willard a while ago. I read her speech. You [addressing Miss Couzins] have not quoted her correctly. She did not say all poverty is caused by drink, but what she said was that drink causes poverty.

Another statement was made with reference to the German-Americans. I am here as an Irish-American, and I take off my hat to the German-American. Emperor William is not all German, but nevertheless people will look upon his words with respect when he said that the German nation has more to fear to-day from beer drinking than it has to fear from France. You know France and Germany are at enmity in sentiment, and both are armed to the teeth to-day and have the greatest standing armies on the planet, so that when the German Emperor says that his nation has more to fear from the beer habit than from France, German-Americans ought to sit up and think.

I have been all through the State of Kansas and out in Iowa, and I have tried to get a drink out there just to see if the law was violated or not. I could not buy a drink except at a drug store, and then only on the prescription of a physician.

Mr. CAMPBELL. When were you in Kansas.

Mr. WILLIAM V. MAHONEY. Last summer, a year ago.

Mr. CAMPBELL. In what part of the State were you?

Mr. WILLIAM V. MAHONEY. I was all through it, from the eastern frontier westward. When the train passed the eastern frontier of Kansas, I went to the porter and told him I wanted to get a drink, and he said, "Everything is locked up."

Mr. CAMPBELL. Have you ever been in Maine?

Mr. WILLIAM V. MAHONEY. No, sir. In Kansas there are large towns—I do not know this of my own knowledge, but I have heard it stated—where there are children 6 or 8 years of age that have never seen a drunken man on the streets, and when they do see such a person they will go home to their parents and say they saw a man on the street who was "sick." Can we say the same of the children of any town that has saloons?

I am from the same portion of the city that Mr. Leonard is from. I have been instrumental in having 85 boys in the past year there take the temperance pledge. If in ten years only 4 boys have become drinking people, I would blush with shame if I were instrumental, however remotely, in having 1 boy become a drunkard. Those 85 boys I have given my time to when I ought, perhaps, to have been at

home with my family or studying to improve myself, but when they grow up I will have sorrow and shame if I see one of them go to the saloon and become a drunkard in spite of all the time I have put on them.

Mr. LEONARD. I would like to ask you your name?

Mr. WILLIAM V. MAHONEY. My name is Mahoney. I live in the southeast.

Mr. LEONARD. I have lived thirty years over there, and I never saw you, although I have heard of you and your family.

Mr. WINBIGLER. If we get prohibition in the District of Columbia it will be like smashing the rattlesnake's head. The tail will live a little while afterwards; it will wiggle, but it will not bite.

**STATEMENT OF MR. RICHARD L. RIEDEL, REPRESENTING THE
CENTRAL UNION MISSION, DISTRICT OF COLUMBIA.**

Mr. RIEDEL. Just one moment, Mr. Chairman and gentlemen. Mention was made a while ago of the German-American. I am a German-American, born in Saxony, and I tell you, gentlemen, that not every German is a beer drinker. There are millions of them that are not, and the whole German Empire is rising up against it. [Applause.] I am an American citizen. I came to this country when I was 6 years of age, but I am proud to be of German origin.

Mr. WEBBER. We ought not to have things wrong here. One gentleman arose and said he represented the wholesale liquor traffic.

Mr. CRAIN. Nobody said that. There is no one here who has said that.

Mr. WEBBER. The point I make here is that these parties represent both the beer and whisky dealers of this District.

The CHAIRMAN. My remark a while ago was brought about by a statement of yours as to Mr. Crain.

Mr. WEBBER. I corrected myself as to that.

The CHAIRMAN. We have had no communication from any wholesale liquor dealers or distillers in regard to this bill, but the brewers are opposed to it—those interested in the sale of beer. But I want to call your attention to the fact that the manufacturers of whisky and wholesale liquor dealers and distillers have entered no protest against it.

Mr. WEBBER. What I wanted to say to the committee and what I want to have go into the record is, that there are three men who have spoken for both the beer interests and for the whisky interests?

Mr. CRAIN. They are retail liquor dealers.

Mr. HUGH F. HARVEY. We are satisfied that this question be submitted to the vote of the people. We are satisfied that if the majority of those who can vote were allowed to vote there would be no question about this bill. They would vote against it. We ask you, and agree with our opponents—those who favor the prohibition bill—that if such a thing were possible, submit it to the vote of the citizens of the District of Columbia, and we will abide by the result.

A LADY BYSTANDER. If you will only give us prohibition, then, if it is not found to be a success, you can take it away from us. [Applause.]

STATEMENT OF MR. JOHN R. MAHONEY.

Mr. JOHN R. MAHONEY. Mr. Chairman and gentlemen, I have one thought to offer to the committee in regard to prohibition not prohibiting. In the District of Columbia we have no vote for the judge or prosecuting attorney or anybody else, so that we would not have his sympathy, as might be the case if we voted for him, because we voted for him. Pass a bill for this District, and the officials, being under no obligation to the citizens for electing them to their positions, will perform their duty; and I tell you, gentlemen, if you give us prohibition, we will see that the officials of the District of Columbia will enforce it. There is an element in this town to-day, sirs, that will see that the law is enforced. Our judges and prosecuting attorneys will enforce it, because there are no voters behind them that helped them to get into their positions.

The CHAIRMAN. Now, Mr. Webber, I think each side has been sufficiently heard.

Mr. WEBBER. Yes, sir.

The CHAIRMAN. I want to say, in behalf of the committee. that we—

Mr. WEBBER. Excuse me, Mr. Chairman; a stack of petitions did not get up here through inadvertence. Some were left at Mr. Shoemaker's office. I hope you will receive them if they come in later.

The headings of the petitions referred to is as follows:

To the Senate and the House of Representatives of the United States.

We, the undersigned property owners and residents of the District of Columbia, over the age of 18 years, earnestly petition you to enact into law House bill 8016, known as the "Webber bill," providing for the prohibition of the beverage liquor traffic in the District of Columbia.

The CHAIRMAN. We will receive anything that comes up this week. Now, Mr. Webber, I wanted to express, on behalf of the committee, our appreciation of the kindness of all who have taken the trouble to come here this morning.

Mr. WEBBER. I thank you, sir. On behalf of the temperance people, Mr. Chairman and committee, we desire to express our thanks for the patient hearing you have given us. [Applause.]

(The following resolutions and letters were filed:)

[Men's Club of the Anacostia M. E. Church.]

FEBRUARY 12, 1907.

Resolved, That the Anacostia Men's Club of the Anacostia M. E. Church appoint a committee of three to appear before the District Committee and urge the passage of the Webber bill.

The above resolution was unanimously adopted and the following committee were appointed representing the club consisting of sixty men: R. Lee Scaggs, Johnson Hardy, and George Shoemaker.

ARTHUR B. SUIT, President.

S. R. CAMPBELL, Secretary.

[Resolutions of mass meeting held at Belasco Theater.]

WASHINGTON, February 10, 1907.

HON. J. W. BABCOCK,

Chairman of the Committee on District Affairs,

Washington, D. C.

HONORABLE AND DEAR SIR: We respectfully beg to submit the following resolution which was passed by the allied representatives of the Christian churches

and temperance forces, of the city of Washington, in mass meeting assembled at the Belasco Theater Sunday afternoon, February 10, 1907, at 3 o'clock:

"Resolved, That we, the citizens of Washington assembled in the Belasco Theater, earnestly petition our Congress to pass the Webber bill in the District of Columbia and bring into existence a better morality and a purer Washington."

WILLIAM A. HICKEY,
Secretary of the Meeting.

[Epworth League of Metropolitan Memorial M. E. Church.]

Resolved, The officers and members of the Epworth League of Metropolitan Memorial M. E. Church, comprising 250 residents of the District, have expressed their sentiments as being strongly in favor of the so-called Webber bill now pending before Congress, and do earnestly pray that it will soon become a law.

Respectfully yours in the cause.

GEO. W. STILES, JR., M. D., *President.*
EMILY A. LAWRENCE, *Secretary.*
H. A. WILLSON.

[Waugh Brotherhood.]

To the Chairman and Members of the Committee on the District of Columbia of the House of Representatives of the United States.

GENTLEMEN: We, the undersigned, members of a duly appointed committee representing the Waugh Brotherhood, an organization of men of the Waugh Methodist Episcopal Church, Third and A streets NE., Washington, D. C., do hereby respectfully represent to your honorable body that it is the earnest wish and desire of the above-mentioned organization that the sale of intoxicating liquors in the District of Columbia be prohibited.

That in the opinion of the organization the sanction by the Government of the sale of intoxicating liquors within the limits of the District of Columbia is not only harmful and injurious to the moral and physical well-being of the residents thereof, but is demoralizing in its influence on the people throughout the nation at large.

To the end, therefore, that this much-needed reform may be brought about, it is respectfully urged that you make an early and favorable report on the bill now before you, known as the Webber bill, providing for the prohibition of the sale of intoxicating liquors in the District of Columbia.

C. J. TOWNER, *Chairman,*
A. J. WARD,
R. S. FERGUSON,
A. L. BALDWIN,
Committee.

[Sunday School Association of the District of Columbia.]

WASHINGTON, D. C., February 15, 1907.

HON. J. W. BARCOCK,

Chairman Committee on the District of Columbia, House of Representatives.

DEAR SIR: It was my intention to be present at the hearing granted by your committee on yesterday, upon the Webber bill, but I was prevented from attending by pressing business engagements. I take the liberty of expressing my sympathy with the bill and of urging a favorable report.

The association named at the head of this letter has by far the largest constituency of any organization, religious or secular, in the District of Columbia. That constituency is the nearly 44,000 men, women, and children enrolled in the white Protestant Sunday schools in our District. We regard the saloon as our foe, and we desire to see it banished from our fair city.

Very respectfully,

W. W. MILLAN,
President District of Columbia Sunday School Association.

APPENDIX.

[H. R. 6016, Fifty-ninth Congress, first session.]

A BILL To prohibit the manufacture and sale of intoxicating liquors in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no person shall, on and after the first day of August, anno Domini nineteen hundred and six, either himself or by agent, sell or keep for sale, or offer for sale, or give away, or furnish within the District of Columbia any intoxicating liquors save and except as provided in section second of this act.

SEC. 2. That the provision of said section one relating to the sale, keeping, or offering for sale of intoxicating liquors shall not apply to regular druggists or apothecaries conducting regular drug stores or apothecary shops within said District, but such druggists or apothecaries shall not sell intoxicating liquors except for known mechanical, pharmaceutical, sacramental, or medicinal purposes, nor compound, nor mix for sale, or sell any composition containing intoxicating liquors, except upon the prescription of a reputable physician, if for medicinal purposes, residing in said District. Nor shall he make more than one sale on any one such prescription; and every such druggist or apothecary shall keep a book for the special purpose and enter therein the date of every sale of intoxicating liquor made by him, the name of the person to whom sold and his residence, the kind and quantity and price thereof, and the purpose for which it was sold (and where such sale was for medicinal purposes); the prescription paper on which the same was sold shall be pasted in said book in connection with such entry in such manner that the same can be read, and such books shall be at all times open to public inspection during business hours. Any failure of any such druggist or apothecary to comply with the provisions of this section shall render him liable to the same penalties as if he were not at the time of such sale such druggist or apothecary.

SEC. 3 That any person who violates any provision of this act shall, on conviction thereof in the police court on a prosecution in the name of the District of Columbia, be punished by fine of not less than one hundred dollars nor more than five hundred dollars, and be imprisoned in the jail of said District not less than thirty days nor more than ninety days for the first offense, and for the second, or any subsequent offense, for the violation of any provision of said act, such person shall be fined not less than three hundred dollars nor more than one thousand dollars, and be imprisoned in the jail of said District not less than six months nor more than one year.

SEC. 4. That prosecutions for violations of the provisions of this act shall be on information filed in the police court by the attorney of the District of Columbia, or any of his assistants duly authorized to act for him, and said attorney, or his assistants, shall file such information upon the presentation to him, or his said assistants, of sworn information of any reputable citizen of said District that said law has been violated. It shall be the duty of said attorney of said District, or any of his said assistants, to prosecute any person who violates said act by information in said police court when satisfied, by evidence or information from any source, that said act has been violated; and it shall be the duty of all policemen and other executive officers, whose duty it is to arrest violators of law within said District, to give information to said attorney, or his assistants, of any infractions of said act that may come within their knowledge within their respective jurisdictions.

SEC. 5. That in the interpretation of this act words of singular number shall be deemed to include their plurals, and words of the masculine gender shall be deemed to include the feminine, as the case may be.

SEC. 6. That this act shall be in lieu of and as a substitute for all existing laws and regulations in the District of Columbia in relation to the sale, manufacture, furnishing, or giving away of distilled and fermented liquors in said District, and all laws, or parts of laws, inconsistent with this act be, and they are hereby, repealed.

Report of Commissioners on H. R. 6016.

FEBRUARY 17, 1906.

Hon. J. W. BABCOCK,

Chairman of Committee on the District of Columbia.

DEAR SIR: The Commissioners of the District of Columbia have the honor to state that they are not prepared to recommend favorable action upon H. R. 6016, Fifty-ninth Congress, first session, "to prohibit the manufacture and sale of intoxicating liquors in the District of Columbia," which was referred to them at your instance for their examination and report, as they believe that it is impracticable to enforce such a law as the bill proposes in the District of Columbia.

Very respectfully,

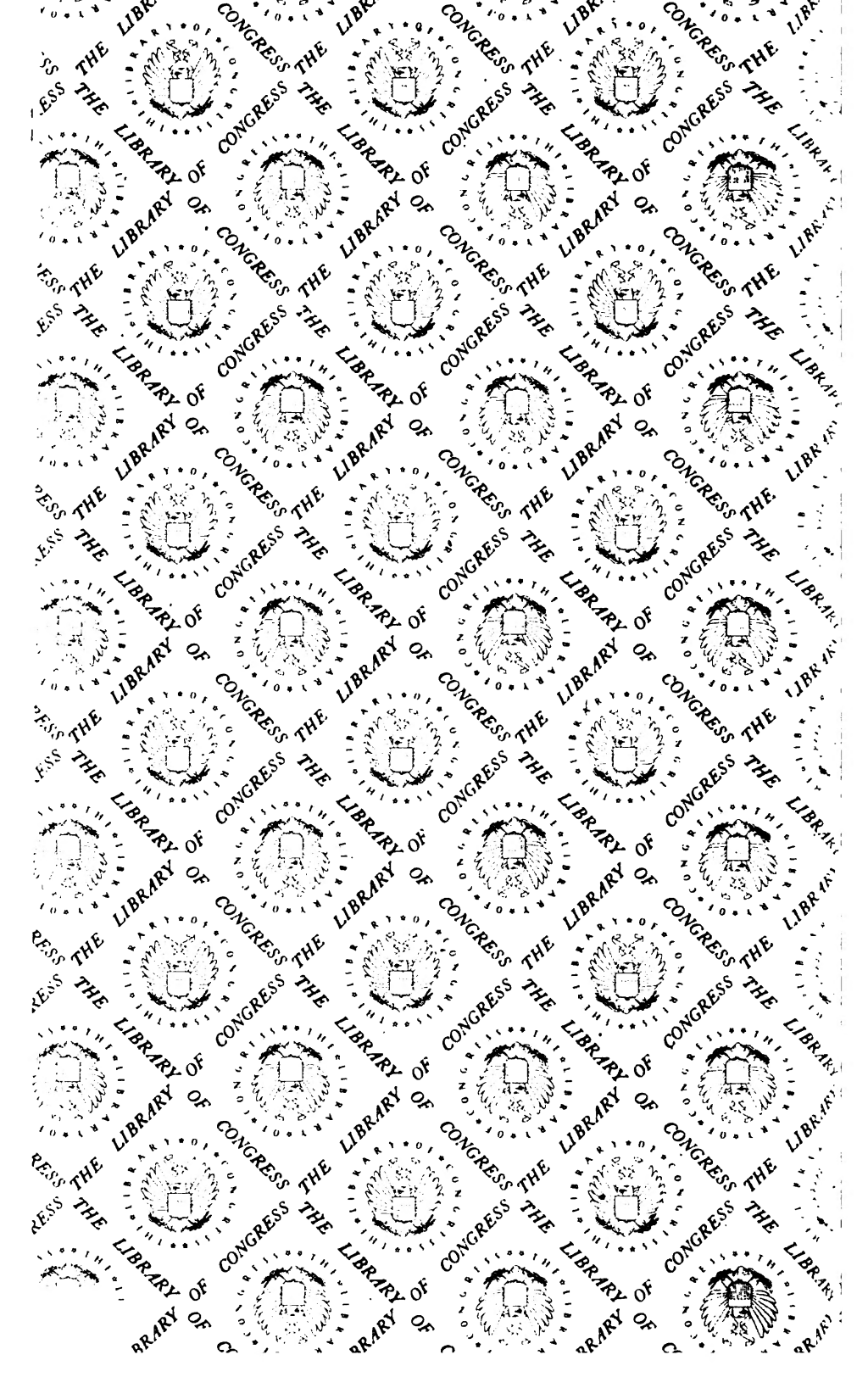
HENRY B. F. MACFARLAND,

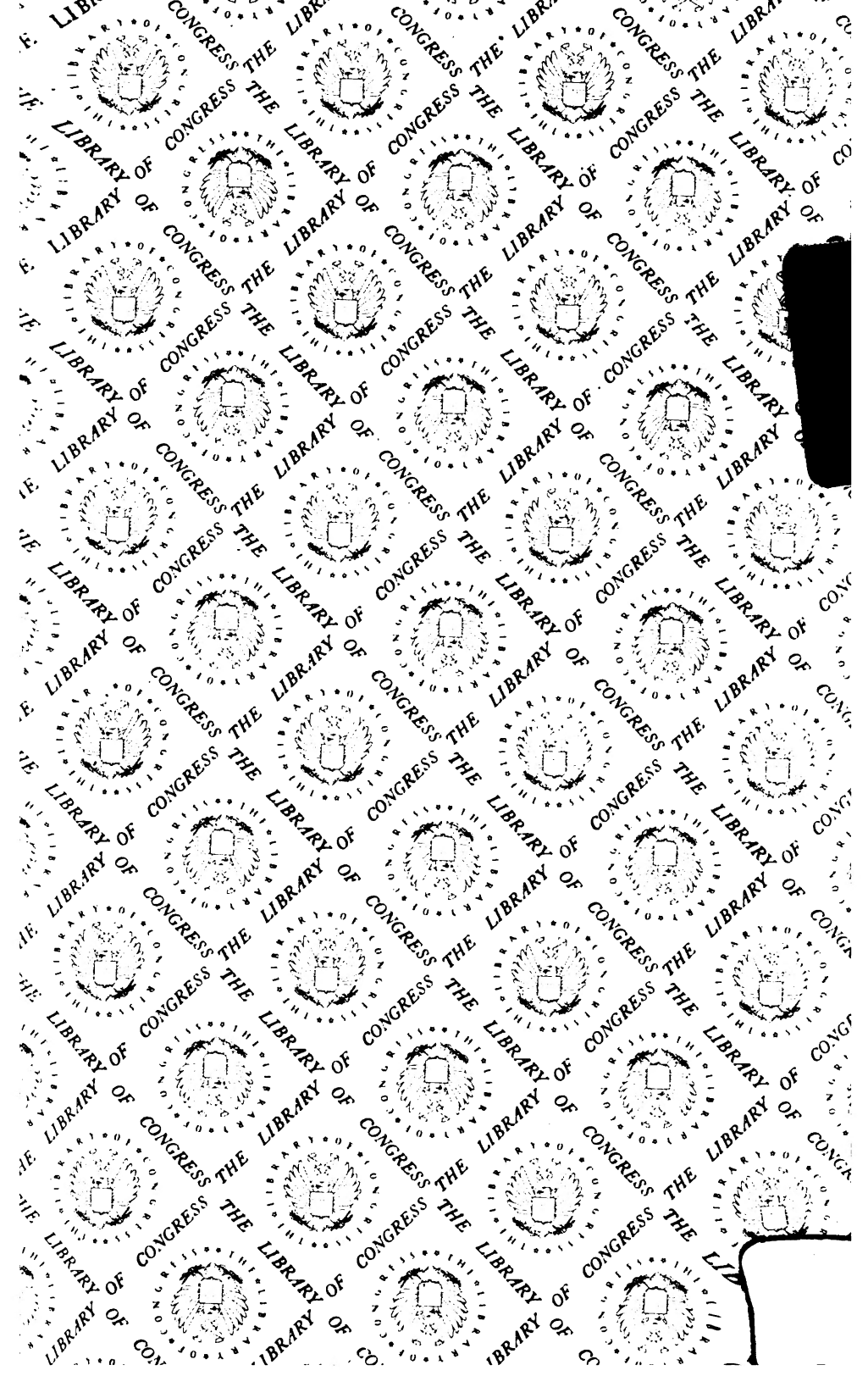
President of the Board of Commissioners of the District of Columbia.

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